



Corine Muer, entertainer extraordinary to the refrigeration industry, has put on dinner shows for Kelvinator, Leonard, Norge, Frigidaire, General Electric, Majestic, and many other conventions in the last few years. Above are candid camera snapshots of a show she staged recently for Kelvinator. Corine herself is shown in the upper right-hand corner.

## BY G. F. T.

### 500,000 Watts

With night testing of the giant new 500,000-watt transmitter now virtually complete, WLW was granted authority by the Federal Radio Commission to embark on a series of day-time tests a short time ago.

At the conclusion of these final tests application was to be filed with the commission for permission to operate this gargantuan transmitter, with its most powerful radio broadcast signal ever generated, on WLW's regular day and night schedule.

Exhaustive tests conducted almost nightly between 1:00 and 6:00 a. m. during the past two months have found the new transmitter equipment meeting all the extremely rigorous requirements originally set forth as to its performance.

Actual operation thus far definitely established a number of facts which—although predicted by engineers responsible for the design and construction of the new 500-kw. transmitter—existed in the past only in theoretical supposition.

For example, it has been proved that a 500-kw. station, with its tremendous 2,000,000-watts undistorted peak of modulation, can be built so that in actual service it will modulate fully 100 per cent; that is, provide the greatest possible program signal on its carrier wave.

That an exceptionally high quality can be obtained is established through the fact that its frequency characteristics are essentially flat (within two decibels) from 30 to 10,000 cycles—a range extending from slightly below the lowest note to twice above the highest note on a piano keyboard—and that its audio harmonics are of negligible quantity being below 10 per cent, a quality rarely found even in the most modern transmitters.

Field strength measurements made throughout the country confirm almost exactly the predicted service of this Goliath of the air. The 10-fold increase in power over WLW's present 50,000 watts has increased that station's signal strength at all points approximately 325 per cent while increasing its secondary service area by about 1,000 per cent.

In thus raising the signal level to within the limits of automatic volume control provided in modern receiving sets, fading has been materially reduced and even entirely eliminated in many localities.

Satisfactory reception in many sections where static and interference have in the past made such reception impossible has been reported.

Its design and construction required more than two years and a total expense of nearly \$500,000, according to Joseph A. Chambers, technical supervisor of WLW.

Momentary failures, such as "arcs" or "tube flashes" that can be cleared by removal of power, are corrected automatically, the power being shut off and then on again in one-fifth second.

In case of failures in one of the

three audio frequency units, the disabled unit is automatically isolated, the transmitter continuing to operate at slightly reduced power.

The transmitter utilizes the largest audio transformer ever built, weighing more than 100,000 pounds and containing 1,400 gallons of oil.

Twenty huge 100,000-watt tubes, costing more than \$35,000, are used in the transmitter.

22,500 cubic feet of air and 1,200 gallons of water are circulated each minute through the transmitter in order to cool tubes and various parts. A million gallons of water is pumped through the cooling system daily.

During the winter the transmitter plant will be heated entirely from the heat generated by the transmitter.

The accuracy with which the transmitter is maintained on its assigned frequency of 700 kilocycles prevents its interference with other stations.

### How Programs Are Tested

Perhaps while we're on the subject of radio, you'd like to know something about how radio advertisers decide whether or not they're getting value received from their enormous expenditures of money.

You can't clip a coupon out of a broadcast, you know. Well, list to this account:

Both National and Columbia are interested in the number of sets regularly in use at various times of the day rather than in the response to any one specific program. John Karol, director of sales research at CBS, says that for the past four years surveys have been made by a firm of certified public accountants to determine, not only the number of radio sets in use, but the number tuned in regularly on Columbia stations at every hour of the day. This figure is then broken down into listening areas for each station, i. e., the number of sets within range which are regularly tuned in on the station.

Independent surveys show that in 1933 there were some 18,000,000 radio homes in the United States. And it is expected that by next year there will be over a million radios in automobiles.

Although the networks are not interested in going farther than the gross figures, advertising agencies often seek to determine as nearly as possible the number of listeners tuned in on a given program.

Since it is obviously impossible to make contact with any appreciable number of listeners, all methods are based on estimated percentages of the total number of set-owners in the territories tested. The three chief methods of making such surveys are the coincidental telephone call, the recall procedure, and the program roster.

The first employs some 15 or 20 skilled telephone girls at a switchboard, who call listeners' homes every 15 minutes each day for a week, asking the householder what program he is listening to at the moment. This test is usually conducted in 20 or 30 key cities throughout the country simultaneously, to give a cross-section of the entire listening audience.

The recall procedure consists of having the householder "contacted" by either phone or personal interview,

### Crosley Proteges



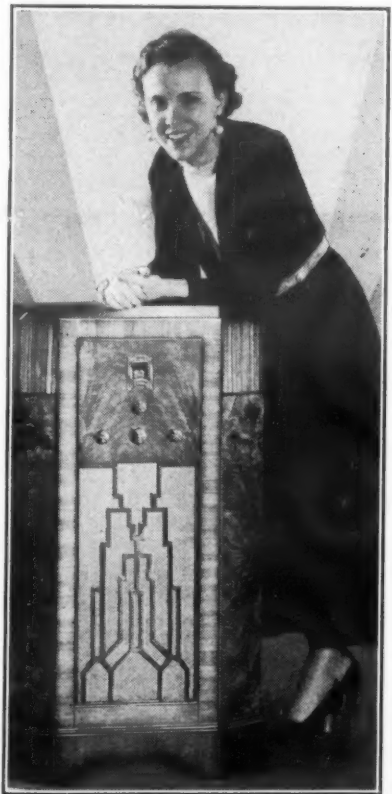
Carl Grayson, new WLW find, and his wife, who also sings. Hear them every Wednesday.

and asked to recall what programs he listened to the previous day.

The third method—the program roster—is conducted entirely by personal interviews, in which the listener is shown a list of stations and time periods as a jog to the memory, and then asked to recall the programs he listened to the preceding day.

Fan mail counts too; although there are some advertising managers, like DUANE WANAMAKER of General Household Utilities, and EARL DOTY of Frigidaire, who declare that it's unreliable and unproductive.

### Her Father Listens



MARY ALCOTT  
H. E. Richardson, her sales executive father, never misses one of her Pure Oil broadcasts.

### Fun of Broadcasting

No end of genuine pleasure is connected with being part of a broadcasting station. It's real fun just to hang around WLW. And the Crosleys—Powel, Lewis, and Powel III—can have a hand in the making of stars. JANE FROMAN, strictly a WLW product, is a case in point.

A star they're grooming right now is MARY ALCOTT (see picture on this page), who is rapidly attaining a big following. Mary's last name (she spares the announcers and doesn't use it) happens to be Richardson, and her father is none other than H. E. Richardson, assistant to Powel Crosley in charge of sales!

One night recently the writer sat and listened with Mr. Richardson while a new band went on the air—CARL GRAYSON and his orchestra.

This unique combination—there are six violins in this dance ensemble—had never appeared in public, and this was its first time on the air. It was purely a Crosley project. To our way of thinking—and, being a traveling man and eating regularly at hotels, we hear a lot of good bands—it was marvelous (or perhaps we should follow the vogue and say "terrific"). Have you heard it? Grayson himself has a glorious voice, and it blends unusually well with his orchestra.

MARGARET CARLISLE, English musical comedy actress, is another recent WLW addition.

### Radio at the World's Fair

More music and entertainment will be broadcast from the World's Fair grounds in Chicago in 1934 than last year. Actual broadcasts from the grounds will start six weeks before the official opening day. NBC, CBS, WLS, and WGN will maintain offices on the grounds.

Orchestral music, originating at the fair, will be broadcast regularly over the various networks, coast-to-coast. One of the real features will be the Ford Motor Co.'s symphonic orchestra which will play daily in the band shell to be erected as a part of that company's \$1,500,000 exhibit.

Fifteen weekly programs, coast-to-coast, are even now carrying as a part of their regular announcements, "This program comes from Chicago, the World's Fair City for 1934." All Chicago stations and all networks have begun active cooperation in the publicizing of the fair.

With a vast hook-up some 200 stations will broadcast World's Fair programs. Thirty pickup locations on the grounds will be pressed into service. To accomplish this more than 500 miles of wire is required to connect these with the central "patchboard" in the Administration building.

The Ipana program, nation-wide, originating in Radio City, New York, has already begun the search for "Miss Dental Personality." Three girls will be selected, from various parts of the country, and given a free trip to the fair with all expenses paid. From these three a finalist will be chosen, at the fair, who will be crowned "Miss Dental Personality."

For some time prior to the actual opening of the fair daily announcements will tell of the progress of work on the new buildings, new villages, and the new landscaping. Wines and liquors will be served on

the grounds for the first time this year. This will bring to the grounds better and finer eating places. All of this means larger and better musical programs in the restaurants and cafes. Drinks will be served only in the restaurants—no bars.

Amateur broadcasting, short wave, will have a place of increased importance in the 1934 radio picture at the fair. Three short wave transmitters will be set up in the Travel and Transport building. These, and the amateur exhibit, will be under direct charge of the World's Fair Radio Amateur Council.

Responsibility for this section is in the hands of F. J. HINDS (W9APY-W9WR), chairman of the council, and L. H. KEHM (W9DDY), manager. Last year the call letters for the World's Fair stations were W9USA, for code work, and W9UBS for voice.

Application has been made for use of the same call letters for 1934. Any duly licensed radio transmitting amateur visiting the fair will be permitted to operate the transmitters if he has his license with him. It is unlawful for a person to operate an amateur station unless he has his license on his person.

In the exhibit will be a full size replica of an old-time "spark station," which will show how amateurs sent and received signals in the early days of radio—before and just after the World War. To show comparison a replica of a modern type will also be installed.

Other features will be a demonstration showing "remote control" by radio impulses and another showing how the photo-electric cell works. Construction is already under way.

Several contests will be held for visiting radio amateurs and others for those not coming to the fair; in other words, those to whom the station talks. Some of these, it is promised, will be unique.

A number of manufacturers have arranged to display selected materials and equipment for short wave radio work. Some of these will be technical, while others will be easily understandable to the public. A large number of important radio manufacturers will have elaborate displays on the grounds.

### G-E at the Fair

Work has been initiated on the exhibits planned for the 1934 world's fair by the General Electric Co., following the signing of the contract for the renewal of exhibit space by W. O. BATCHELDER, Chicago district manager of the company and Maj. LENOX R. LOHR, general manager of the exposition. The big display will again be housed in the great hall of the electrical building.

Some of the more spectacular electrical phenomena which entertained more than 700,000 people in General Electric's air-conditioned "House of Magic" auditorium last summer will be retained, and several new demonstrations will be in evidence.

The sodium vapor lighting, which was last year introduced as a laboratory accomplishment, will this summer be presented as a practical product already in use in certain cities. Laboratory demonstrations will be confined to the auditorium, while the remainder of the space will be devoted to working models of apparatus and various labor-saving appliances.



# REFRIGERATION NEWS

Registered U. S. Patent Office

ESTABLISHED 1926. MEMBER AUDIT BUREAU OF CIRCULATIONS. MEMBER ASSOCIATED BUSINESS PAPERS. MEMBER PERIODICAL PUBLISHERS INSTITUTE.

VOL. 11, No. 17, SERIAL NO. 266  
ISSUED EVERY WEEKCopyright, 1934, by  
Business News Pub. Co.

DETROIT, MICHIGAN, APRIL 25, 1934

Entered as second-class  
matter Aug. 1, 1927THREE DOLLARS PER YEAR  
TEN CENTS PER COPY

## FRIGIDAIRE, KELVINATOR, WESTINGHOUSE RAISE PRICES

### Winslow, Baker, Meyering Corp. Buys Zerozone

**Company to Be Operated As Subsidiary of Detroit Firm**

DETROIT—Winslow-Baker-Meyering Corp. last week purchased the good will, name, patterns, fixtures, jigs, and certain production tools of Zerozone, Inc., at a receiver's sale and will continue to manufacture the Zerozone household and commercial lines of electric refrigerators under the Zerozone name.

Winslow-Baker-Meyering will operate Zerozone as a subsidiary company, as it operates Copeland Refrigeration Corp. and Kellogg Mfg. Co.

All the assets of Zerozone, Inc., were not purchased by Winslow-Baker-Meyering. The plant on 95th St. was not included in the purchase.

C. E. Jernberg, former president of Zerozone, Inc., has been placed in charge of the new Zerozone operations by Winslow-Baker-Meyering Corp. New headquarters for the company will probably be selected within the next two weeks, Mr. Jernberg declared.

(Concluded on Page 20, Column 2)

### Ice Cream Freezer Fits in Evaporator

CHICAGO—The Easy-Way Freezer, a new electric motor driven ice cream freezer for the home which fits into the freezing or ice cube compartment of household electric refrigerators, has just been introduced by the Easy-Way Co. of this city.

The new home ice cream maker will retail for less than \$15, according to officials of the company.

Chief claim made for the new freezer is simplicity of design and operation. It is tubular in shape, with motor built into one end. It has a flat base so that it will rest firmly in the evaporator. In operation the housewife merely pours the mix into the container, fastens the cover with the spring latch, places it into the freezing compartment, and plugs in the attachment cord.

When the ice cream is frozen to the proper firmness the motor overloads, shuts off and automatically

(Concluded on Page 16, Column 1)

### Norge Will Have Oil Burner Ready May 1

DETROIT—Entrance of Norge Corp. into the oil burner field was officially announced last week by executives of the company.

The company will be ready to make shipments on its oil burner line May 1, officials have declared.

The Norge oil burner division will be under the sales executive direction of H. E. Whittingham, secretary of the company. Ralph A. Beale, formerly sales manager of Silent Automatic and Toridheet, both well-known oil burner manufacturers, will be in active charge of all field sales operations.

Norge's oil burner is of the popular gun type, in three models. Later the company may add rotary burners, atomizing burners, and range burners, officials declare.

Chief distinctive feature of the

(Concluded on Page 20, Column 2)

### Fedders Opens Branch At Dallas

BUFFALO—Opening of a new factory sales and engineering branch and warehouse in Dallas, Tex., was announced last week by Fedders Mfg. Co., manufacturer of evaporators, ice cube makers, unit coolers, valves, and beer coolers.

Leo J. Freitas has been appointed manager of the new Fedders branch. He has previously been connected with the development, engineering, and sales department at the factory.

### 6 New Air Conditioners Are Introduced By York

By John T. Schaefer

YORK, Pa.—York Ice Machinery Corp. has just announced several new air conditioners to be sold through dealers and distributors of the York company. The new models are a year around floor-type air-conditioning cabinet, a "midget" floor-type room cooler, a small ceiling-type year-around air conditioner, and two large overhead units with all-season functions.

The new floor-type air conditioner (model F-125-D4) is a compact, year around unit for installation in residences, specialty shops, offices, and similar applications where summer cooling and dehumidifying as well as winter heating and humidifying are required. It may be used in either single or multiple applications.

The cabinet has been designed with straight side front, with panels. The air outlet velocity is sufficiently high to insure improved air distribution without drafts, York engineers claim. The fan motors are of the capacitor type, the speed of which may be changed to suit a particular application.

Model F-75, the midget floor-type air conditioner, is for summer cooling and dehumidifying. It is modernistic in design, with black rubbed enamel paneling, secured to a stainless steel frame, which forms a light metal

(Concluded on Page 14, Column 1)

### Gibson Signs Up 9 New Distributors

GREENVILLE, Mich.—Nine new distributors for the 1934 Gibson household electric refrigerator line have just been named by the sales department of Gibson Electric Refrigerator Corp.

The new distributors include: Williams Philco, Inc., Peoria, Ill.; Gerlinger Equipment Co., Postoria, O.; Pittsburgh Auto Equipment Co., Pittsburgh; Republic Supply Corp., Detroit; Schuster Electric Co., Cincinnati; Maytag Sales Co., Cleveland; Domestic Utilities, Inc., Chicago; H. E. Sorenson Co., Des Moines, Ia.; Ross Distributing Co., Phoenix, Ariz.

### At the Opener



Powel Crosley, Jr., manufacturer of Crosley refrigerators and radios, operator of radio station WLW, and new owner of the Cincinnati Reds National League baseball team, as he looked just before the first baseball game of the season at Cincinnati (see page 10 of this issue).

### Air Conditioning Issue Next Week

Next week's issue (May 2) of ELECTRIC REFRIGERATION NEWS will feature air conditioning.

Special editorial material in this issue will include a directory of manufacturers of air-conditioning systems classified by functions, a presentation of the features of new equipment, and stories of installations.

### Norge Ships 19,998 Household Units During March

DETROIT—The month of March was the biggest in the history of Norge Corp., according to Howard E. Blood, president, with shipments totalling 19,998 units. This figure exceeded the best previous month's production by more than 20 per cent. At the end of the month, unfilled orders on hand totalled 18,797.

Shipments of Rollator refrigerators for the first quarter set a new high record, being approximately three and a half times those of the same period of 1933.

"We are operating our plants at capacity," said Mr. Blood, "trying to cope with the influx of orders. Orders

(Concluded on Page 20, Column 5)

### Sparton Appoints 14 Distributors

JACKSON, Mich.—Fourteen new distributors who will handle Sparton refrigerators and Sparton radios were announced last week by Harry Sparks, vice president of the Sparks-Withington Co.

The new distributors include: Justus and Parker Co., Columbus, O.; Cummings and Emerson, Peoria, Ill.; Mayflower Sales Co., St. Louis; Cappel Furniture Co., Dayton; Boetticker and Kellogg Co., Evansville, Ind.; Automotive Service, Inc., San Francisco; Stedman Hardware Co., Lancaster, Pa.; Bayview Co., Charlottesville, Va.; Pump & Lighting Co., Charlotte, N. C.; Inland Radio Co., Spokane, Wash.; A. E. Ravenscraft, Inc., Los Angeles; Hinsdill's Electric Co., Troy, N. Y.; and West Virginia Distributing Co., Petersburg, W. Va.

According to Mr. Sparks, the Sparton plants here are now operating at full capacity 24 hours daily. The company now has more unfilled orders on its books than at any time since the fall of 1928, Mr. Sparks declares.

### Bulletin

DETROIT—Effective Monday, April 23, the Detroit office of the Refrigeration Division of Nema was moved temporarily to the Universal Cooler Corp., 7424 Melville St., Detroit, Mich.

## PENNSYLVANIA DEALER NEWS

### Selling Season on in Full Force in Pittsburgh while Waynesboro, York, and Lancaster Are Slow to Start

By Elston D. Herron

It wasn't such a whale of a job to detect, during our first 20 minutes in Pittsburgh, that the refrigeration season was on there.

As we drove into the city at 11 p. m., we saw a big illuminated sign, on which was a pretty housewife telling passing motorists that the way to "keep food fresh" is by using an electric refrigerator. It was signed by the Electric League of Pittsburgh.

Next we saw that all Yellow Cabs were wearing rear tire covers saying, "Make your choice a new Kelvinator—four refrigerators in one."

### Pittsburgh Stores Fight Meter Selling

Outside the hotel, we bought a copy of the Pittsburgh Post-Gazette, and as we turned the first page, saw a three-column advertisement of Gimbel's department store, featuring Frigidaire. Parts of the copy said:

"Why pay more for the privilege of being annoyed?"

"Remember the old story of the boss' wife coming to pay a call just when the gas meter was turned off—and not a quarter to be found within three blocks?"

"Unbelievable in these days? Not at all, if you have to experience the inconvenience of having your refrig-

erator shut off simply because you forgot to drop the change into the meter. What's more, you pay extra for this privilege of being annoyed..."

"Who buys the meter? Upon close investigation you will find you do! Not frankly, in a flat charge, 'Meter,' but in the exorbitant rate of interest charged for the privilege of using it..."

Another advertisement on Grunow, from the Kauffman store, carried in scare-type the words, "No Meter."

We wondered about the "why" of those advertisements. Next day, we found out.

Since early spring, two large furniture stores in town have been selling refrigerators on the meter plan—Spear's on Frigidaire, and May-Stern on Kelvinator, Westinghouse, and Norge.

Refrigeration men in Pittsburgh soon found out that the two stores were making plenty of meter sales. (At the Frigidaire distributorship, we were told that since early March, when it began using meters, Spear's has averaged 100 Frigidaire sales a week—75 per cent of them on the meter plan.)

Then three of the city's half-dozen department stores handling refrigeration started an advertising campaign against the meter stores. Two of them have been pretty mild in their copy—haven't said much more than "No Meter."

But Gimbel's has been fighting with gloves off—has used a lot of newspaper space with text much like that from which excerpts are given above.

With very few exceptions, smaller dealers out of the main business section haven't been much perturbed by the ruckus. A few have been using bank checks in sales to housewives, but as nearly as we could learn, none of them have reduced payments to the equivalent of monthly meter-takings.

Many of these outlying dealers, we heard, have done the opposite of complaining about meter competition.

They have told their distributors that all the pro-and-con advertising on meter-refrigeration made the Pittsburgh public start doing some heavy thinking about refrigerators, brought prospects into their stores earlier than usual, and put their sales to date ahead of last spring's.

### Local Bureau Holds Cooperative Show

At noon of our one day in Pittsburgh (April 16), the local electric refrigeration bureau opened a refrigeration show in the William Penn hotel, to last through April 21. Ten makes were on exhibit.

Fifteen-or-so women, some with

(Continued on Page 2, Column 1)

### Frigidaire Ups Prices on All 1934 Machines

**Base Price of \$112.50 Set For Small Model; March Shipments Set Record**

DAYTON—Price increases on all 1934 Frigidaire household electric refrigerators were announced last week. Base price (all prices listed include delivery and installation, but not freight) of the line is now \$112.50.

Shipments of Frigidaire household models during the month of March constituted the largest number of units ever shipped in one month within the history of Frigidaire Corp., according to Frank R. Pierce, sales manager.

Following are the new prices (delivered and installed, exclusive of freight) for the household models:

Standard 434	\$112.50
Standard 534	141.00
Standard 634	166.00
Master 434	152.50
Master 634	219.50
Master 834	261.50
Super 434	191.00
Super 634	248.00
Super 734	274.00
Super 934	302.50
Super 1234	367.50
Super 1534	459.00
Deluxe 1234	425.00
Deluxe 1534	514.00

### Kelvinator Increases Prices On All but Deluxe Line

DETROIT—Retail price increases, effective last Monday, have been announced by Kelvinator Sales Corp. on all its domestic electric refrigerators except those in its deluxe line.

The increases are as follows: model V, 4.22 net cu.-ft. capacity, \$9.25; model N, 4.22 net cu.-ft. capacity, \$10; model M, 5.29 net cu.-ft. capacity, \$11; model NB, 6.43 net cu.-ft. capacity, \$10; model PA, 5.13 net cu.-ft. capacity, \$10; model PB, 6.17 net cu.-ft. capacity, \$13; model PC, 7.36 net cu.-ft. capacity, \$12; model PD, 8.73 net cu.-ft. capacity, \$12; model SA, 5.29 net cu.-ft. capacity, \$12; model SB, 6.35 net cu.-ft. capacity, \$20; model SC, 7.54 net cu.-ft. capacity, \$21.50.

The "V," "N," and "S" series have lacquer exteriors and the "P" models have porcelain exteriors.

The advances in price have been necessitated by continued increases in the price of raw materials, according to H. W. Burritt, vice president in charge of sales.

### Westinghouse Prices Are Increased 3%

MANSFIELD, Ohio—Prices on all Westinghouse electric refrigerators have been upped approximately 3 per cent on each model, according to Manager Ray C. Cosgrove of the household refrigeration department of the Westinghouse Electric & Mfg. Co.

Prices now start at \$134.50, plus freight, for the 4-cu. ft. model.

Monday, April 23, was the biggest day in Westinghouse refrigeration history, declares Mr. Cosgrove. On that date 11,100 bona fide orders for Westinghouse refrigerators were placed. Orders for this month will exceed 35,000, while some 30,000 units will be shipped.

The Mansfield plant is now turning out 15,000 refrigerators a month, with a bank of 40,000 machines warehoused for the shipping department.

### Gilfillan Uses Seeger Cabinets in New Line

LOS ANGELES—Gilfillan Bros., Inc., of this city, manufacturer of household electric refrigerators, will use Seeger cabinets in its 1934 "Superior" line of household models.

An order for 20 carloads of Seeger cabinets was placed by Gilfillan early this year.

## NEWS FLASH: NEMA SALES (15 MANUFACTURERS) FOR MARCH—135,470



## PENNSYLVANIA DEALERS

(Continued from Page 1, Column 4)  
their husbands, were looking at refrigerators when we dropped in before the show opened or all the displays were ready. That afternoon and evening the affair was well attended. Makes represented at the show, and their distributors, were:

Crosley, Anchor Lite Appliance Co.; Frigidaire, Suburban Electric Development Co.; Grunow, Brown-Dorance Electric Co.; Ice-O-Matic, Rutledge Sales Corp.; Kelvinator, C. R. Rogers Co.; Leonard, J. A. Williams Co.; Norge, Ludwig Hommel Co.; Sparton, Houston-Starr Co.; Truscon, Hamburg Bros.; Westinghouse, Danforth Co.

### Hamburg Pioneers Truscon Refrigerators

Hamburg Bros., for several years the Pittsburgh Majestic distributor, has just taken on the Truscon refrigerator line—cabinet by Cleveland's Truscon Steel Co., unit by Universal Cooler Corp. of Detroit.

Hamburg Bros. is just taking over the first and fourth floors of the building adjoining its present quarters, 963 Liberty Ave., for use as display and office space.

B. B. Levin, Hamburg's sales promotion manager, said that the NRA has been a big factor in stimulating Pittsburgh business. His statement:

"Even since the NRA began its work, the mines and steel mills here have been working on much better schedules than they had been for some time previous.

"Before NRA, coal miners were drawing very low wages. Now they are getting \$4.60 a day. The New Deal has given working people some money to spend here, and many of them are spending it for electric refrigeration. Besides, the NRA has put the entire

community in a better frame of mind."

### Westinghouse Claims Four Fold Coverage

Only one of the six distributors we visited failed to give specific credit to the NRA for a good part of the business improvement Pittsburgh is enjoying.

He was Robert G. Eckhardt, general sales manager of the Danforth Co., Westinghouse distributor. Said he: "Pittsburgh's industries have increased their wages and number of employees sufficiently to help the city a great deal. I'm not sure that the NRA was the cause of this, however. The start of NRA and the business pickup may have been only coincidental."

#### Covers Alleghany County

Danforth, covering Alleghany county, had a 20 per cent increase in its refrigeration business during the first quarter, as compared with last year. From April 1 through 15 this year, it sold 460 refrigerators, whereas it sold only 419 during all of April in 1933. April 2 to 7 was the biggest week in the company's history, said J. W. Dorris, retail sales manager.

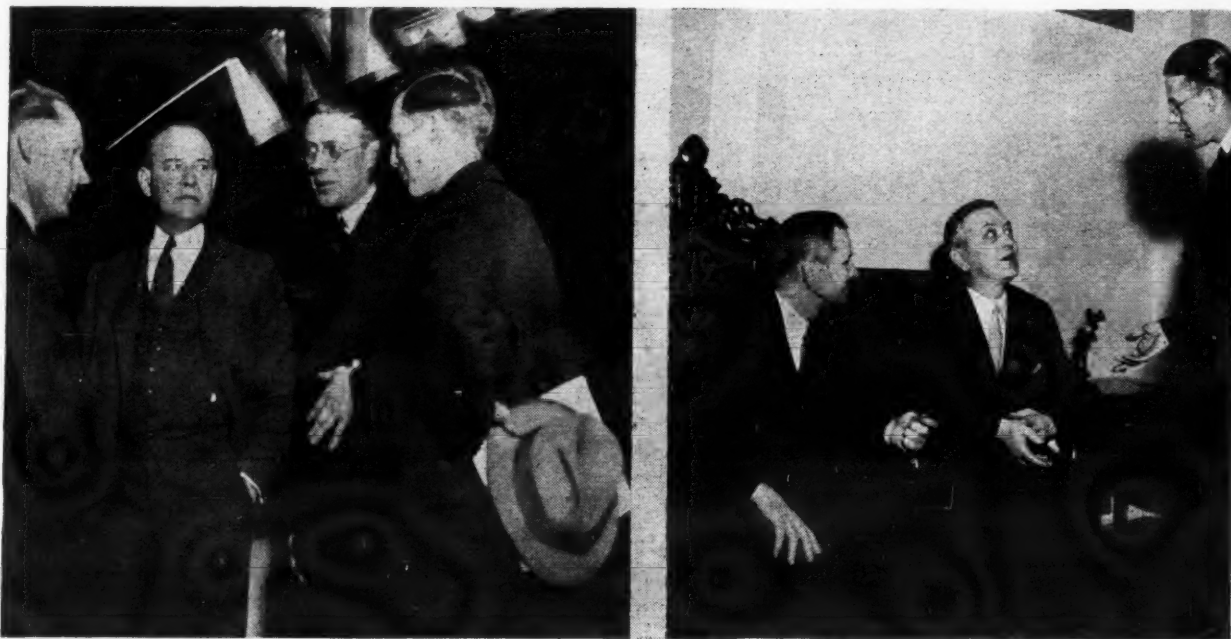
The distributor has what Mr. Eckhardt calls four-way coverage in the one county territory it serves. First, it has 40 retail salesmen—one-third of them working out of Penn Ave. headquarters, one-third out of a downtown store, and the rest out of the company's South Hills store.

Second, it has 12 branches of the Duquesne Light Co. selling Westinghouse. Third are four department stores and one furniture store, and fourth, 28 "neighborhood" dealers in the county, for whom the distributor

does all service and installation work. The entire territory is open. Any of the retail salesmen may work in any dealer's area, and vice versa. Or a dealer may visit a prospect in the section having a utility branch selling Westinghouse, etc.

Said the sales manager: "Other distributors tell us that it can't be done, but we're doing it, and aren't having any trouble. We won't stand for any of our retailers cutting price, though. If we find one doing that, he's cut off our list immediately."

## 'Boy! Is Business Good This Year'



Photographed at a meeting of the Iron City Electric Co., Westinghouse distributor in western Pennsylvania are (left to right): C. H. Miller, Huntington; W. I. Bickford, Iron City official; W. M. Kline, Iron City merchandise manager; C. T. Schwartz, Pittsburgh; J. F. Bacon, salesman; P. F. Day, Uniontown; Mr. Kline.

### Servel Branches Expect Many Commercial Sales

Just about the busiest division of the Servel-Electrolux factory branch in Pittsburgh is its staff of 15 commercial refrigeration salesmen. J. M. Clark, manager, believes the branch this year will do two and a half times the commercial business it did last.

"Proprietors of restaurants, butcher shops, and grocery stores are buying refrigeration now, or considering it, while six months ago a salesman couldn't even get them to listen," he said.

"We look for some good business in industrial water cooling this season, too, but don't expect beer cooling to offer much."

He expects milk cooling to pick up this season, also. Heretofore, it has been slow, because there is no Pennsylvania law covering bacteria count in milk.

The governor, however, has just appointed a commission to study milk production and distribution, and Mr. Clark thinks that perhaps a bacteria-control regulation may result from the group's work.

Owners of Pittsburgh business establishments are showing quite an interest in air conditioning this spring, according to the manager, but he says that "they can't get used to the high price of the equipment," that they have got the impression from some advertising that the price is very low.

Electrolux sales have been good this year. As compared with last year, January sales were 3.4 times greater; February, 10.6 times; and March, 3.22 times. In the first 10 days of this April, more sales were made than during all that month in '33. Mr. Clark expects this year's total Electrolux sales to be five times larger than last.

"We don't allow any of our men to accept trade-ins, and if we find a dealer cutting price, we'll cancel his franchise in 24 hours. We don't want Electrolux to get in the rut electric refrigeration got in."

### Anchor Lite Gets 150 New Dealers

"Who is buying electric refrigerators this year?" we asked C. J. Kauffman, general manager of the Anchor Lite Appliance Co., Crosley distributor.

"Our dealers report that 85 per cent of their sales are being made to people earning \$40 per week or less," he said. "Most of our advertising, featuring a \$99.50 price, is being directed toward that market."

From Feb. 19 to the end of March, this distributor signed up 150 new dealers—led in a franchising contest sponsored by Crosley. It now has 385 retailers in western Pennsylvania, expects '34 sales to be four times ahead of last year's.

### Rogers Finds Meters Move Refrigerators

The C. R. Rogers Co., Kelvinator distributor, has four dealers selling its refrigerators on the meter plan—in Pittsburgh, Altoona, Johnstown, and McKeesport.

Whatever else may be said about meters, opined Mr. Rogers, they certainly do move a lot of refrigerators. "But use of meters must be confined to a very few accounts, because the retailer has to be well financed to operate on this plan—the meters cost money, and payments extend over a long period," he stated.

Last year was this distributor's first full season in refrigeration. He hopes to double sales in '34—first quarter was 600 per cent ahead of

that in 1933. Five-cu. ft. model has been best seller.

Prospects are good for commercial, too, he said—checked with Mr. Clark by stating that the market among owners of small food shops, eating places, etc. looks especially promising.

### Suburban Sales Show Nice Increase

Another man who said the same thing was Q. P. Carvel, sales promotion manager of the Suburban Electric Development Co., Frigidaire distributor. He added that there are a number of establishments that would install new commercial equipment now, but are poor credit risks.

This distributor's first-quarter sales were 64 per cent better than in '33—March was 350 per cent bigger than that month last year.

### Duquesne Light Co. Is Clean Competitor

The Duquesne Light Co. handles Norge, Kelvinator, and Westinghouse in Pittsburgh, but isn't a very aggressive merchandiser. Distributors said the utility is a clean competitor, and one even remarked that "the power company will fall over backwards to be fair to other dealers."

Starting late in April the Duquesne company will cooperate with several Pittsburgh distributors in a campaign to promote air-conditioning sales.

It will first run a newspaper advertisement, then send direct-mail piece to a selected list of prospects. Then, in rotation, the distributors will send direct-mail pieces to these prospects—timed so that the latter will receive one letter a week from some distributor.

When all distributors have sent letters and salesmen, the utility will start the process all over again. This rotation will continue until late in August.

Each time a sale is made, the power company will announce it in display advertising, then send special notices of it to the prospect list.

### Waynesboro, Pa.

Electric refrigeration apparently hasn't made as much progress in Waynesboro, Pa. as in some other cities of the country.

At the utility company, we weren't able to find how many refrigerators are installed in the town's 2,000 to 2,500 wired homes, but from retailers we learned that refrigeration consciousness there isn't very high.

### Bohn Says Educational Job Is Necessary

Said J. T. Bohn, owner of Bohn's Electric Store, Grunow dealer: "We have a big educational job to do here. A lot of our people still don't see the need for refrigeration in all seasons. Soon as the weather begins to get cool, a good many Waynesboro housewives start using window boxes. "When we start canvassing in the early spring, several times a day we run into 'It's still too cold to think of buying a refrigerator.' The result is that our real selling season doesn't get under way until May."

The two ice dealers in the town, Myers & Myers, and H. E. Martz—do a good business during the warmer months. They buy ice from the Waynesboro Ice & Cold Storage Co. and deliver it throughout the city, said Mr. Bohn. The ice manufacturer sells only to cash-and-carry customers.

Last year, Mr. Bohn handled Kel-

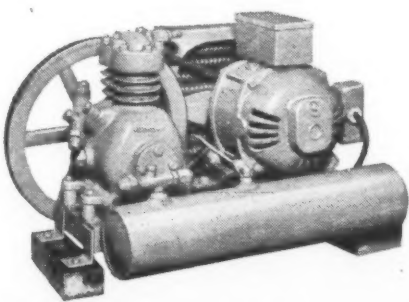
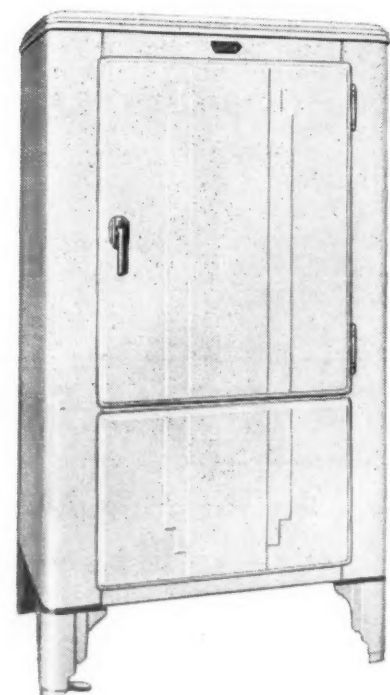
## Greater Beauty... Greater Performance Mean Greater Profits on the New 1934 ICE-O-MATIC

**H**ANDSOME modernistic cabinets... five startling improvements in design... and Duopower for faster cooling, greater efficiency... these are the sales-clinching Ice-O-Matic features which insure rich, steady profits for you.

Note the modernistic skyscraper design of this new Ice-O-Matic—brilliant, yet conservative enough for years of service. There are five big new "talking point" features—foot pedal door opener, wear-resisting Dulux enamel finish, centrally located cooling unit with greater bottle space, "free wheeling" door latch, and unique bottom shelf, one-half of which may be removed for bottles.

And in addition—the large Ice-O-Matics now have Duopower! Twin-cylinder compressors mean swifter cooling—less running time—even longer life. Ice-O-Matic is built—not just assembled—by the makers of the world famous Williams Oil-O-Matic oil burners. Ice-O-Matic also makes a full line of commercial refrigeration at attractive low prices for grocers, butchers, restaurants, florists, etc.

The coupon or a telegram will bring you full information on the money-making opportunities with Ice-O-Matic. Write today to Williams Oil-O-Matic Heating Corp., Bloomington, Ill.



The new Ice-O-Matic Model "T" compressor which delivers double power.

WILLIAMS OIL-O-MATIC HEATING CORP.  
Ice-O-Matic Division, Bloomington, Ill.

Please send me full details of the 1934 Ice-O-Matic Line and Franchise.

Name .....

Address .....

City ..... State .....

Present Business .....

WILLIAMS  
**ICE-O-MATIC**  
REFRIGERATION



# THE FINEST REFRIGERATORS GENERAL ELECTRIC EVER BUILT!



**They are attracting thousands to the show rooms of General Electric dealers**

**T**HIS spring from coast to coast, thousands of refrigerator shoppers are hailing the new style sensations in electric refrigerators created by General Electric.

Long recognized the leaders in performance, General Electric refrigerators now capture the admiration of every housewife who appreciates smart styling and modern design. Brilliantly beautiful in their faultless simplicity of line, the new General Electric models are the aristocrats of refrigerators... both in appearance and mechanism.

G-E dealers are telling their many prospects: "There are only two types of electric refriger-

ators—Monitor Top and Flat Top—and only General Electric makes both! The Monitor Top, with its famous sealed-in-steel attention-free mechanism, has made refrigeration history with an unparalleled record of dependable trouble-free performance at low cost. And now General Electric offers *5 Years' Protection* against failure of the Monitor Top mechanism for only \$1 a year!—the standard 1-year warranty, *plus* 4 years' additional protection for \$5—a dollar a year!

"And the General Electric Flat Top model, with its smart styling, advanced convenience features and greater performance capacity,

offers quality and value to be found in no other popular-priced refrigerator carrying the standard one-year warranty."

Refrigerator retailers handling the General Electric line have the advantage of public preference for the G-E Monitor Top—*plus* the advantage of popular-priced G-E Flat Top models. Both are being acclaimed by the shopping public as the Style Sensations of 1934. If you are not already a G-E refrigerator dealer, write or wire for particulars of the General Electric franchise. General Electric Company, Electric Refrigeration Department, Section DF44, Nela Park, Cleveland, Ohio.

**GENERAL  ELECTRIC**  
*All-Steel Refrigerator*



## PENNSYLVANIA DEALERS

(Continued from Page 2, Column 5)  
vinator, but isn't proud of the number of sales he made. Chief trouble, he said, was that the dealer who had the line in '32 didn't do a good job of servicing the units he sold, and the line got a black eye.

In January, he took on Grunow, and thinks he and his two outside men will quadruple last year's volume (which included several sales of Jewetts—also dropped this year). Best market, he said, is among the town's retired and professional people, and those working in offices of several factories there.

For some prospects, Mr. Bohn will install a Grunow refrigerator on a one-week free trial basis, said he can close 90 per cent of the prospects who let him put units in their homes.

### West Penn Launches Advertising Drive

West Penn Power Co., utility in Waynesboro, is just starting a series of advertisements in the local paper, highlighting the need for refrigeration, and saying, "See the West Penn Power Co. or your electrical dealer."

The utility sells Frigidaire, has four outside men working on all appliances. O. H. Lashley, sales manager, said that April, so far (April 18), had been much better than last year, most sales being made to shop foremen and office workers. Seven-cu. ft. models have been most popular.

A good number of the farms around Waynesboro are wired, and offer a good market for refrigeration this season, Mr. Lashley said.

"Farmers here in the Cumberland Valley are very conservative," he told us. "They won't buy anything until they can pay for it. So when we do sell them Frigidaires, the sales are for cash. We look for a good business

there this year if crop and dairy prices pick up."

The power company has a standard rate of trade-in allowances on old ice-boxes: 25-lb. sizes, \$5; 50-lb. boxes, \$7.50; 75-lb. or over, \$10.

### Promotion Helps Fail In Small Towns—Fries

J. R. Fries, General Electric dealer, isn't bragging about the job he did last year, either, but said that sales so far this season have been four times better and will probably be that much ahead of '33 at the end of the year.

Increase in employment by the Frick Co., Landis Machine Co., and Landis Tool Co. has helped Waynesboro considerably and given refrigeration dealers cause for optimism, he said.

"The workers themselves aren't buying refrigeration," he said, "but the salaried people in the factory offices are. Most of them have bought sevens this year."

"NRA was the cause of a part of the hiring done by plants here, but it worked a hardship on some of our merchants, because store-keepers in a town of this size (10,000) just can't afford to put on extra help when they really don't need it."

Mr. Fries finds that he can't profitably use much of the sales promotional ideas and materials furnished by the factory. Said he:

"That sort of thing is meant chiefly for use in markets in the metropolitan areas. Most of it can't be applied in an operation in the smaller places."

"Take direct mail, for instance. It is good if it can be used consistently, and if there is a staff of salesmen to follow it up. Smaller dealers can't afford a staff big enough to handle

mailings properly and follow them up as they should be.

"In a town like this, a dealer's best bet is newspaper and billboard advertising, because his problem is keeping his own name before the public—not that of a certain product."

### Westinghouse Has New Waynesboro Dealer

At the Crunkleton Electric Co., Westinghouse dealer, we met S. E. Carbaugh, store manager, who began work April 1. This outlet, branch of Greencastle Pa. Westinghouse dealership, expects to sell between 15 and 20 refrigerators this year.

### York, Pa.

Dealers in York, Pa., are doing a lot of thinking about chiseling these days. That price cutting is prevalent there they admit, but so far they haven't done much to stop it.

C. J. Chambers, sales manager of the Edison Light & Power Co., which dealers told us has never swerved from its no-price-cut policy in selling the G-E line, said that the utility attempted last season to bring local retailers together into an association for promotion of ethical merchandising practices. But the dealers wouldn't gang together very well, so the league did not materialize.

"Not only are our six salesmen prohibited from cutting price, but they aren't allowed to make any allowance on old ice boxes. If a G-E buyer wants to dispose of an old box, our company will pay for a small for sale ad, or we will try to sell the box for her at our warehouse."

Wiest's department store is selling Frigidaires on the meter plan in York, and the Bon-Ton store sells Kelvinators the same way, but other dealers aren't raising much hullabaloo.

### South - - On Business



H. M. Wible, Westinghouse commercial refrigeration sales manager, introduced the new Westinghouse beverage cooler to Southern Coca-Cola bottlers assembled in Miami.

Said Mr. Chambers: "We will never use meters. At present, we have about two repossessions a year, and we want to stay that way."

"Meter stores are starting something that may be hard to stop—at the end of the year, some of them will find they have a lot of used merchandise to dispose of."

York people are, and have been for several years, sold on the idea of electric refrigeration, said Mr. Chambers. He proved his statement by telling us that in the 23,000 to 24,000 wired homes in York and York county served by his utility, there are 10,000 electric refrigerator installations.

And this season bids fair to be a good one, he added, because several of York's much-diversified industries have resumed fairly active operation.

The Edison company's sales of G-E refrigerators so far this season have been double what they were during the same period last year, and expectations are that '34 total sales will be between 25 and 50 per cent greater than last year.

### York Corp. Makes Citizens Refrigeration Minded

Charles G. Eyster, proprietor of the H. E. Goodling Electric Co., Norge dealer, has two reasons to account for the refrigeration consciousness of York townpeople.

"First," he said, "scattered throughout the whole town are employees of the York Ice Machinery Corp. They know electric refrigeration, believe in it, depend upon it, and so recommend it to all their neighbors and friends."

"Second, the town has a lot of chain food stores which compete strongly with each other. On week-ends, especially, they do a great deal of advertising, sell large quantities of food. Just seeing the advertisements week after week, and buying some of their offerings make housewives do plenty of thinking about food preservation."

Many of the down payments made on Norges have been substantially larger this year than they were last, according to Mr. Eyster. Good percentage of his customers have made \$100 initial payments, with the balance to be paid in a few months to avoid carrying charges.

The dealer's four outside men have sold 85 units this season—32 since April 1 (to April 19). They hope to sell 300 by the end of the year. From July 15, 1933, when it took on Norge, to the end of December, the dealer sold 125 refrigerators. Most buyers this season are in the \$1,500-a-year class.

Mr. Eyster handles all the company's commercial business himself—Copeland and Carrier.

Last year, he told us, most of his sales were for beer cooling—he made 20 installations for that purpose. This season, however, more sales are being made to other types of commercial refrigeration users, such as restaurants, food stores, etc.

He recently sold a 3-hp. Carrier condensing unit for cooling 36 ft. of display case and a 10x10-ft. butcher box in a York meat market, 1½-hp. Copeland unit to another meat store, a 2-hp. Carrier unit to a dairy, and a 2-hp. Copeland to another dairy.

### Leonard Dealer Sees Profits In '33 Models

In the window of the Electric Shop we saw a large sign advertising a special sale on Leonard refrigerators, so went in to investigate.

We met Proprietor Robert W. Lauer, who explained that he is selling '33 model Leonards at their old prices, and is going to continue the sale as long as his distributor, the Klein Stove Co. in Philadelphia, can supply some last year's models.

He is accepting ice boxes on trade-ins, said he will allow up to 10 per cent of the price of the '33 Leonard, depending upon the model selected and the condition and size of the box.

The dealer has some new Leonards in stock, on which he and his two salesmen do outside selling. In 1933, his sales were between 40 and 50 refrigerators; he will reach 75 this year, he believes.

"It doesn't worry me because a couple of stores here are selling on the meter plan. I don't want the class of trade that can't make down payments, and I don't want the repossessions that are bound to come from some meter sales," he remarked.

Later he observed that, "a dealer is wise if he carries two refrigerator lines—one nationally advertised, and the other low priced. Then he has something to interest all parts of his market."

### Tredway Finds Factory Workers Good Prospects

At Tredway's Electric Shop, Apex appliance outlet, we found Proprietor K. K. Tredway frankly disgruntled because two prospects, whom he thought were "sold," had just told him they couldn't buy.

"Several concerns in and around York, which formerly paid good wages, have reduced their pay to the minimum required by the NRA," he said. "Instead of maintaining their existing wage scales, or raising pay still more, they cut it."

"As a result, they have reduced the buying power of their employees. These two prospects had to back out because their employers cut their pay to as low a level as NRA permits."

Another York dealer said this: "We don't mention the NRA when we tell prospects that prices are going up. Talk about NRA being one of the reasons is all right to prospects whose pay has been increased because of it, but it doesn't make a hit with the prospects who haven't had any of the benefit NRA was supposed to give."

Mr. Tredway said that factory workmen have been his best buyers this year, that most of his refrigerator sales have been made on an 18-month payment plan.

He expects his refrigerator sales this year to gain considerably over last year's, will use newspaper advertising almost exclusively as a promotion. "Direct mail isn't effective," he said. "People get too much of it at their doors."

### Lancaster, Pa.

General business conditions in Lancaster, Pa. (population 60,000), aren't so good as in some other parts of the country.

The city depends primarily on the rich farm lands in Lancaster county, and for the past few years, crops from those lands haven't netted enough to bring much money into the town. In addition, four Lancaster banks which shut their doors last year are still closed—with deposits of about \$9,000,000 in them.

Two distributors we visited said all this is having its effect on their refrigerator sales this year.

### Vondersmith Finds \$1,000 Income Group Buying

During the first quarter of this year, H. M. Vondersmith, Westinghouse distributor with five dealers in the county, made fewer sales than in the corresponding period of 1933, says George R. Dessen, sales manager.

He expects this year's total—in the company's retail operation, at least—to be better than last year's, however, because the firm recently moved to a new salesroom in the downtown district, where shopping traffic is good.

Majority of Westinghouse buyers in Lancaster this season, said Mr. Dessen, have been those earning from \$1,000 to \$1,200 a year.

L. H. Shopf, assistant general manager of the Landis Electric Co., Kelvinator distributor, said that company's first-quarter sales were about the same as last year. He, too, expects some increase over last season in total sales for this year.

"Last year," he said, "most of our buyers were in the higher income brackets, but this spring, buyers have been chiefly the \$1,200 to \$1,500-a-year folks."

"The NRA has done almost nothing for this city. When it started, several factories took on some extra employees, but they were dropped later, in many cases."

# ZEROZONE

*Lifetime electric refrigeration*

Winslow-Baker-Meyering Corporation announce that they have purchased the business, in its entirety, including manufacturing rights, good will, patents, tools, etc. of

**Zerozone**  
*Lifetime Refrigeration*

and will continue to supply the full line of Zerozone Commercial Condensing Units and Zerozone Refrigerators.

Manufacturing operations will be conducted with the same care which has always characterized Zerozone production and all service parts needed for existing models will be available at all times.

The former president of Zerozone, Inc.

**Mr. C. E. JERNBERG,**

will be in charge of operations.

Distributors and dealers who are handling and who have handled Zerozone products in the past are invited to communicate with our Chicago office, for full details of the Zerozone franchise now offered to the trade.

During the past ten years this institution has made many friends in the refrigeration world by reason of the excellence of its product. Its wide public acceptance in the past is definitely traceable to superiority of design, manufacture and supervision.

The new owners of Zerozone pledge that nothing will be left undone to perpetuate and extend the good-will earned by Zerozone during its many years of service to the industry.

# ZEROZONE

Owned and Operated by Winslow, Baker, Meyering Corporation  
939 E. 95th Street CHICAGO, ILL.



"Yes, I know I'll be proud to say

*Ours is a Frigidaire '34"*



★ In fact, thousands are *already* saying it. Just ask a few Frigidaire dealers . . . • Their story is the same all over the country — "Prospects by the hundreds are coming in to see the Frigidaire '34". . . "Your sales plans are the best we've ever had". . . "Have never closed so many orders in so short a time". . . "We're making sales records every week." • Of course, we must admit that Frigidaire dealers have a handsome start. For Frigidaire is the best known electric refrigerator and there are a million more in use than any other make. The dealers who sell it are doing more business—making more money. • How would you like to have your customers say, "Ours is a Frigidaire '34"?"

Just write Frigidaire Corporation, Subsidiary  
of General Motors Corporation, Dayton, Ohio.

FRIGIDAIRE

A P R O D U C T O F G E N E R A L M O T O R S



# Copeland

DEPENDABLE ELECTRIC REFRIGERATION

## SHIPMENTS ARE HEAVY

Friends of Copeland will be pleased to learn that our plant is now employing almost as many people as during highest peak production.

Carloads of refrigerators and commercial units are leaving daily for points East, West and South.

Distributors are enthusiastic about the design, appearance and performance of Copeland refrigerators and are especially gratified at the splendid opportunity to make money with Copeland.

The Copeland management is thoroughly appreciative of the generous support accorded their efforts and, as promised in previous announcements, are sparing neither money nor effort to produce the ultimate in refrigeration values.

Distributor territory is not yet completely allotted but is rapidly being taken up. Write, wire or phone if you wish to join us.

21 commercial and 7 household models  
comprise the Copeland 1934 line.

COPELAND REFRIGERATION CORP., Mt. Clemens, Mich.

## Baking Firm Sponsors New Cooking School

TOLEDO—An unusual cooperative cooking school program has been launched here this year by the H. G. Bogart Co., General Electric distributor, and the Toledo branch of General Baking Co., manufacturer of Bond bread.

The program is an outgrowth of an idea conceived by J. L. Wilson, general manager of the baking company. Last year he organized a series of card parties and meetings at the plant to demonstrate to women how bread is baked and how new uses can be made of bakery products.

In a desire to draw larger crowds this year Mr. Wilson appealed to Distributor H. G. Bogart, Jr., for help with a new promotional plan. Mrs. Alma Harshbarger, home service director for Bogart, in conjunction with Mr. Wilson, perfected a program which included the installation of a G-E kitchen in the baking company's plant.

Mr. Wilson furnished a remodeled lecture hall and the service of the company's home economist, Miss Verna Arnold. The Bogart organization supplied a G-E refrigerator, range, and dishwasher and obtained the assistance of the Hixon-Peterson Lumber Co., which built the kitchen out of Curtis units and cabinet work. The Toledo Edison Co. agreed to absorb most of the power supply cost.

The baking company has 21 salesmen who talk up the school to every grocery store in the city. Every woman's organization is being contacted to schedule dates on which they can attend. Spot announcements are broadcast by the General Baking Co. over a local radio station.

Classes are conducted daily in the modern kitchen. It is expected that 25,000 Toledo housewives will go through this cooking school this year.

## Kelvinator Gets Inquiry From Advertisement Published in '27

DETROIT—Advertisers whose campaigns fail to click overnight should not be too hasty in drawing their conclusions, it was demonstrated in a letter received by Kelvinator Corp. last week which revealed how an advertisement that appeared in a popular American magazine about the time Lindbergh landed in Paris was, seven years later, still fresh enough in the memory of at least one reader to bring results.

From the Azores, islands in the Atlantic ocean, came a letter from Claudio De Sousa Pereira, making inquiry about equipment specified on an "attached sheet."

The "attached sheet" was a Kelvinator page advertisement taken from an American magazine with a 1927 dateline.

## Recovery Drive Reports Show G-E Sales Increase

CLEVELAND—Sales of General Electric major home appliances are enjoying a sharp upturn in all parts of the United States, it was evidenced by reports received here last week in the General Electric All Star Discovery Drive.

The sales campaign, which started three weeks ago in the southern part of the nation, is now in full swing, 11 groups of distributors in the North having opened their activities.

At the close of the third week of the campaign the leaders were as follows:

South—Tennessee Appliances, Nashville; R. S. Montgomery, Inc., Richmond; Electric Household Appliances, Inc., Dallas, Tex.; Electric Appliances, Inc., San Francisco.

North—Caswell, Inc., Detroit; W. N. Hogan, Inc., Wheeling; E. Pulver Cook, Providence; W. L. Thompson, Inc., Boston; James & Co., St. Louis; Storz Electric Refrigeration Co., Omaha; G-E Supply Corp., Butte.

When the campaign opened G. B. Richardson, merchandise manager of Texas Power & Light Co., utility with headquarters in Dallas, ordered five carloads of refrigerators. A week later, Richardson wired for three more carloads of refrigerators and a week after that an order was received in Cleveland for seven additional carloads.

In Griffin, Ga., a town of 10,000, Dealer William Patterson sold \$6,500 worth of commercial equipment in less than a month. L. A. Schnake of Buffalo sold more than a dozen milk coolers in a week. E. W. Magnuson, dealer in Kinsburg, Fla., using the General Electric kitchen as a window display in his hardware store, already has sold more than 60 per cent of his entire year's quota.

Individual salesmen, too, are stepping far ahead of last year's records. There is Mrs. E. L. Wrenn of Washington, D. C., who sold almost \$2,000 worth of commercial equipment in one week.

## New Showroom Opened by Century Burner Dealer

ST. LOUIS—Hundreds of St. Louisans thronged the new display rooms formally opened April 14 at 4701 Washington boulevard, here by Jerry Jakerst, Inc., St. Louis dealer for Century oil burners.

The formal opening was marked by many feature events, free lunch and beer, and an orchestra which played throughout the entire day. M. D. McWilliams, vice president in charge of sales, represented the Century Engineering Corp.

## Delco Campaign Features Kelvinator

DETROIT—Delco Motor Corp.'s advertising campaign to make known to the public the wide-spread use of Delco products will shortly feature Kelvinator as refrigeration's representative in the use of its motors.

This type of advertising approach has been applied by Delco to users of its motors on washing machines, ironers, and vacuum cleaners.

## Correction

In the story about the gasoline-powered refrigeration equipment introduced by the Waukesha Motor Co. published in the April 11 issue of ELECTRIC REFRIGERATION NEWS, one of the products was erroneously called an "ice cube maker." It should have been termed an ice maker, as it freezes 50 lbs. of ice in four 12½ lb. cakes, and was designed primarily for producing extra quantities of ice, particularly in rural districts.

It has a capacity of 200 lbs. of ice in 12 to 15 hours of operation per day, at the rate of 50 lbs. every three or four hours, fuel consumption being two quarts of gasoline for 50 lbs. of ice.

## Cork Manufacturers Oppose Legislation On Tariff, Securities

LANCASTER, Pa.—Three resolutions strongly opposing passage of the securities exchange control, tariff, and labor legislation pending in Congress have been adopted by the Cork Institute of America, according to A. B. Dodge, president of the institute and of the Dodge Cork Co. of this city. Copies of the resolutions are to be forwarded to President Roosevelt and members of Congress.

In opposing the Wagner Labor Bill, the resolution adopted by the Cork Institute points out that the institute believes the employee and employer in industry are partners in the success of the enterprise, and that the best interests of both demand full and sympathetic cooperation between them.

### Fear 'Closed Shop'

The Wagner Bill, the resolution says, will inevitably result in forcing all employees into a labor union, whether or not they wish to join such a union, and by doing so will "legalize" the closed shop. The resolution also states in part:

"The bill will make it possible for a bare majority, say 51 per cent, of the workers in an industry to force their will on all the workers in that industry, and grants practically no safeguards to the interests of the minority. The bill will destroy every company union in industry regardless of the records and accomplishments of such unions and regardless, too, of the fact that the employees in an industry may prefer their company union as against an 'outside' organization."

"The National Labor Board provided for by this bill will have an arbitrary 'rule-or-ruin' power over American industry, contrary to every principle of American justice. The whole spirit of the bill is opposed to industrial harmony, and its passage will result in nation-wide industrial conflicts and the driving of a wedge between employer and employee."

### Tariff Bill May Hinder Recovery

The resolution opposing passage of the Tariff Reciprocity Bill is in part as follows:

"American labor and industry can be safeguarded from ruinous foreign competition in the markets of this country only by the maintenance of an adequate protective tariff. The whole program of economic recovery which has been instituted by the Congress and the President of the United States will widen the spread between American costs and prices and those of foreign countries, thereby increasing this country's dependence upon the policy of protection."

"The pending tariff bill is an abandonment of the American protective tariff policy because tariff reciprocity is not and can not be tariff protection. The bill violates two principles of the American Constitution, one of which requires revenue legislation to originate in the House of Representatives, and the other, requiring Senate approval of all treaties negotiated with foreign countries."

### Contrary to American Thought

"The bill is contrary to every principle of the American recovery program, in that an increase in foreign competition in the American markets will add to American unemployment and reduce American industrial activity, thereby reducing American purchasing power. The bill vests in the President the arbitrary and autocratic power of a dictator over American industry under which he alone may determine whether American industry and labor shall be safeguarded from ruinous competition in the markets of their own country."

### Securities Act Too Drastic

Declaring that the American cork industry is heartily in favor of any sound and reasonable plan which will improve the ethical conduct of American business, and which will prevent legitimate trading in securities from degenerating into unbridled speculation, the Cork Institute outlines the principal reasons for its opposition to the pending Stock Exchange regulatory measure in a resolution which reads in part as follows:

"The scope of the bill is so inclusive and its provisions so drastic that its enactment into law will result in an unreasonable and unwarranted interference by the Federal government with legitimate American business and industry. The passage of this bill will add still further to the present restrictions on and difficulties of financing business, thereby retarding the economic recovery of American industry."

"The bill, while ostensibly intended to regulate the marketing of securities, includes so many provisions which will regulate and throttle industry, many of which are so concealed and indirect as to warrant the statement that the measure is erroneously named and deceptive in character."

# Do all Refrigerator Dealers realize this?

By using C. I. T. you may enjoy the advantages of a truly complete Financing Service administered by our Office in your territory, most probably in your own city.

The men who serve you... who check your credits, purchase your contracts, make your collections... are right on the ground, available on the phone or in your office on short notice.

Remember too that these men are well trained before chosen to represent this long established, responsible financing institution. Skilled men functioning at close range is your protection against the losses and expenses that easily mount up from faulty handling of instalment credit and collection detail.

C. I. T. Plans cover approved types of mechanical refrigerators and water coolers; also electric ranges and air conditioning equipment. Phone today for the C. I. T. man to call.

### THESE C. I. T. LOCAL OFFICES WILL WELCOME YOUR INQUIRY

Akron - Albany - Altoona - Amarillo - Asheville - Atlanta - Augusta - Baltimore - Bangor  
Bay Shore - Beaumont - Beckley - Binghamton - Birmingham - Boise - Boston - Bridgeport  
Bronx - Brooklyn - Buffalo - Butte - Camden - Cedar Rapids - Charleston - Charlotte  
Chattanooga - Chicago - Cincinnati - Clarksburg - Cleveland - Columbia - Columbus  
Cumberland - Dallas - Dayton - Denver - Des Moines - Detroit - El Paso - Erie - Florence  
Fort Wayne - Fort Worth - Fresno - Glens Falls - Greensboro - Greenville - Hagerstown  
Harrisburg - Hartford - Hempstead - Houston - Huntington, N. Y. - Huntington, W. Va.  
Indianapolis - Jacksonville - Jamaica - Jamestown - Jersey City - Johnson City  
Kansas City - Knoxville - Lexington - Lincoln - Little Rock - Los Angeles - Louisville  
Manchester - Memphis - Miami - Middletown - Milwaukee - Minneapolis - Montgomery  
Montpelier - Mt. Vernon - Nashville - Newark - Newburgh - New Haven - New Orleans  
New York - Norfolk - Oklahoma City - Omaha - Orlando - Paducah - Paterson - Peoria  
Perth Amboy - Philadelphia - Pittsburgh - Portland, Me. - Portland, Ore.  
Portsmouth - Poughkeepsie - Providence - Raleigh - Reading - Reno - Richmond  
Roanoke - Rochester - Rome, Ga. - Sacramento - St. George - St. Louis - Salt Lake City  
San Antonio - San Bernardino - San Diego - San Francisco - San Jose - Scranton  
Seattle - Spokane - Springfield - Stockton - Syracuse - Tallahassee - Tampa - Toledo  
Tucson - Tulsa - Urica - Washington - Watertown - Wheeling - White Plains  
Wichita - Wilkes-Barre - Wilmington - Wilson - Yakima - Youngstown.



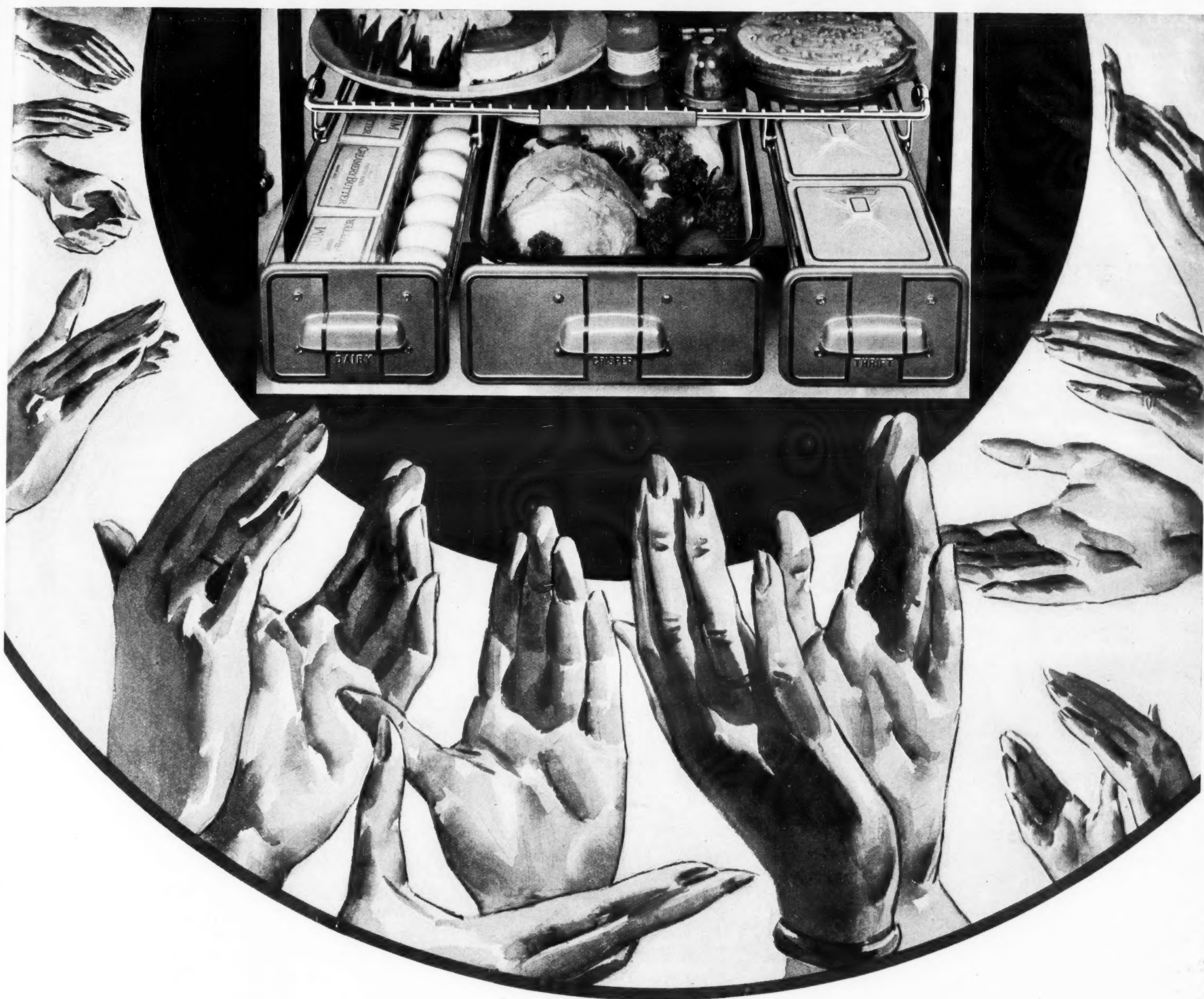
## C. I. T. CORPORATION

NEW YORK — CHICAGO — SAN FRANCISCO

Completely Functioning Local Finance Offices in the Principal Cities

A Unit of COMMERCIAL INVESTMENT TRUST CORPORATION — CAPITAL AND SURPLUS OVER \$70,000,000





## *The Women of America* **ARE GIVING THE NEW KELVINATOR A BIG HAND**



EVERYWHERE to-day from coast to coast women are showing unrestrained enthusiasm for the new Kelvinators that mark the 20th Anniversary of the pioneer manufacturer of domestic electric refrigeration. Such enthusiasm was to be expected, for Kelvinator designers and engineers spared no effort to make this year's Kelvinators the finest in a large line of notable achievements. They introduced the famous Food File, the Frost Chest, the Pastry Set with refrigerated rolling pin, the attractive drinking Water Pitcher and many other innovations which women have

been quick to appreciate. The extent of that appreciation is being shown daily in mounting sales. Kelvinator realizes the part its dealers and distributors are playing in bringing Kelvinator advantages to the attention of women. Their enthusiasm has been just as spontaneous as the customers' and they are as deserving of a "big hand" from us as the 20th Anniversary Kelvinator is of its splendid reception by the women of America . . . KELVINATOR CORPORATION, 14250 Plymouth Road, Detroit, Mich. Factories also in London, Ontario, and London, England.

 **Kelvinator**





## Crosley Applies for Full Time License

CINCINNATI—Formal application for authorization to operate its new 500,000-watt transmitter at full power on radio station WLW's regular day and night schedule was filed recently with the Federal Radio Commission by the Crosley Radio Corp., according to Joseph A. Chambers, WLW technical supervisor.

Construction of the radio transmitter, the most powerful ever built, is now completed. Day and night time tests during the past three months, during which time the transmitter was operated with the temporary call letters W8X0, found all equipment meeting every requirement.

These tests have also confirmed the predictions of Crosley and RCA-Victor engineers in charge of its design and construction, that despite its stupendous power there is no interference with other stations, due to the accuracy with which the transmitter is maintained on WLW's assigned frequency of 700 kilocycles.

"That superpower will 'blanket' the dial of one's receiving set has long since become an exploded myth. The same groundless fears were voiced when WLW's power was increased first from 500 to 5,000 watts and later to 50,000 watts," declared Engineer Chambers.

## White to Supervise Sales For Schacht-Tuck

ROCKFORD, Ill.—O. E. White has just been named refrigeration supervisor for Schacht-Tuck Co., local dealer which also operates branches at Freeport and DeKalb, Ill., and Beloit, Wis.

Mr. White was formerly connected with White Bros. of Racine, Wis.

## 3,806,000 Radio Sets Sold During 1933

NEW YORK CITY—Basic study of the distribution of new radio sets just released by Columbia Broadcasting System in conjunction with McGraw-Hill Publishing Co., shows 3,806,000 sets sold in 1933—a gain of 45.3 per cent over 1932.

Total number of radio homes in the United States is now 18,000,000, or 60 per cent of all homes in the country, states the report. In the highest income level, radio ownership includes nearly 90 per cent of all homes. In succeeding lower levels, ownership becomes proportionately smaller, tapering to less than 40 per cent of all homes in the lowest income level.

Other findings embodied in the report, are these:

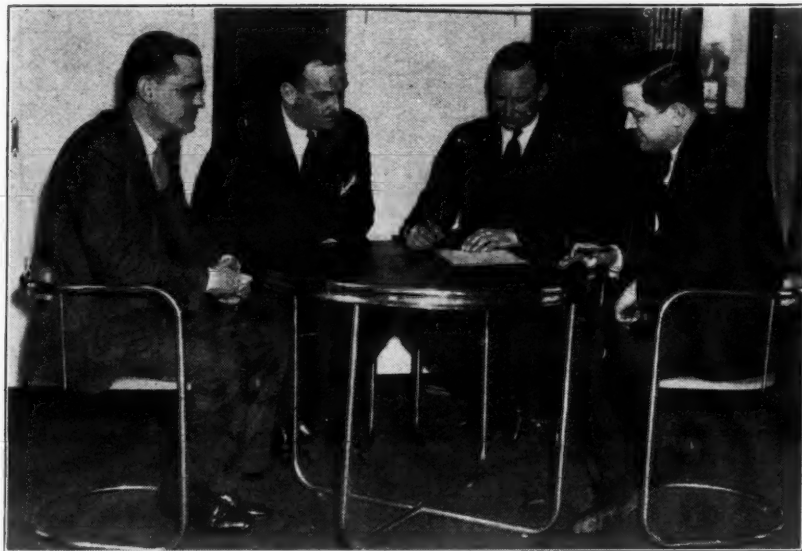
More than a million new homes were added to the radio audience in 1933. Increases in radio ownership ranged from 13.7 per cent in the states where it had been lowest to 5.8 per cent where it had been highest. Almost 2,000,000 new sets were bought by radio owners last year to replace their old ones.

## Boone Heads Mills Ice Cream Freezer Sales

CHICAGO—Appointment of George I. Boone as general sales manager of the ice cream freezer division of Mills Novelty Co. was announced last week.

Mr. Boone was formerly sales manager of the Zero Plate Corp. of Chicago, manufacturer of commercial refrigeration systems, and previous to that was associated with the Allied Store Utilities Co. of St. Louis, manufacturer of Hussmann-Ligonier commercial refrigerator equipment.

## More Refrigerators to Philadelphia



Charlie Phelps, Trev Peirce, and W. G. Peirce, Jr., all of Peirce-Phelps Co., Stewart-Warner distributor in Philadelphia, confer with Charles D'Olive (right), manager of Stewart-Warner's refrigeration department. Bill Peirce is signing an order for 35 cars of refrigerators.

## 2,000 Visit First Show In Fargo, N. D.

FARGO, N. D.—Fargo's first Electric Refrigeration and Home Appliance Show under the auspices of the Radio and Home Appliance Association attracted 2,000 visitors during the week of April 2, according to H. Clinton of the Luger Furniture Co., president of the association.

Makes of refrigeration displayed at the show included Crosley, Frigidaire, General Electric, Grunow, Kelvinator, Norge, and Westinghouse.

## G-E Drafts Profit Sharing Plan

SCHENECTADY—The board of directors of the General Electric Co., on March 29, submitted to stockholders a profit sharing plan designed to affect all employees of the company, who number nearly 50,000.

Under the proposed plan for supplementary compensation, the directors are given authority, in their discretion, to set aside in any year out of the earnings of the company available for dividends on the common stock, after deduction of 8 per cent of the average book value of common stock, an amount not in excess of 12½ per cent of the balance of such earnings. Based upon the present book value of the common stock, no participation can result under this plan until the annual earnings available for the common stock amount to approximately .83 cents per share.

In the 17 years from 1916 to 1932, the average annual earnings of the company available for common stock, before deducting supplementary and extra compensation, were \$38,769,000 and the five per cent supplementary compensation paid under the old plan averaged \$2,371,000. Under the proposed plan the average maximum amount available for this period would have been \$2,408,000. In 1932 and 1933, of course, no amount would have been available under the new plan, although the company did pay out \$1,791,000 in 1932.

The advantage of the new plan is that the payments will vary with the earnings of the company, which is in accordance with the theory of profit sharing.

Before any amount may be set aside for distribution to employees in important and supervisory positions, under the extra compensation plan, there must first be deducted from the earnings of the particular department or of the company as a whole, 8 per cent of the average investment in that department, or in the company as a whole, after providing for all charges and reserves. Thereafter the directors may set aside not more than 8 per cent of the balance of the net earnings of the department or of the company for the purpose of the extra compensation plan.

In the 18 years from 1916 to 1933, the earnings of the company available for common stock, before deducting supplementary and extra compensation, averaged \$37,264,000, the extra compensation paid average \$2,348,000, and the number of participants under this plan averaged 1,912.

The administration of both the supplementary and extra compensation plans will be in the hands of a committee of the board of directors, no member of which shall be eligible to participate in the benefits.

## Department Stores Report 50% Sales Increase

NEW YORK CITY—A recent survey among department stores in 18 leading cities throughout the country, made by Retail Ledger, has shown that these stores enjoyed a 50 per cent increase in their volume of business in major electrical appliances in 1933 as compared with 1932.

The 1932 sales of the stores showed a decrease of 20 per cent from 1931.

Electrical appliance sales in 1933 for these stores amounted to 2.4 per cent of total store sales; markdowns averaged 4.6 per cent of sales.

The survey also showed the nature of appliances sold by these stores. Refrigerators were sold by all stores reporting, washing machines by 95 per cent, ironing machines by 95 per cent, electric ranges by 66 per cent, and oil burners by 33 per cent of the stores included.

## Philadelphia Show Attracts 36,000

PHILADELPHIA—Philadelphia's sixth annual Electric Refrigeration Show, held in the Edison building under the auspices of the Electrical Association of Philadelphia, closed its week's run Saturday, April 14, with new records in attendance and sales over any previous exhibit.

More than 36,000 people attended the show and 13 distributors participated.

Three hundred and fifty-one refrigerator sales from the floor of the show were reported and many hundreds of active prospects were listed.

Interest in the show was heightened through the medium of two "limerick" contests held during the period of the show, the winner in each contest being awarded an electric refrigerator with a retail value of \$200.

Concurrently with the Philadelphia Show, the Electrical Association, in conjunction with 18 dealer members in Chester, Pa., conducted a similar display in that city.

The Chester exhibition was visited by more than 13,000 persons and 103 electric refrigerators were sold by the 18 dealers.

## GOOD Connections are Necessary

In business, in the professions, in society and in industry.



Here are a group designed to make good connections always—in automatic refrigeration installation.

For more than 20 years Commonwealth Brass has furnished good connectors, unions, tees, nuts, elbows, strainers, caps and plugs to the refrigeration industry.

Every piece must pass 100 per cent inspection. It must be seepage-proof. It must "make-up" tight and stay that way.

When manufacturers, installers and service people use Commonwealth Fittings they are assured of good connections.

"BUILT RIGHT TO STAY TIGHT"

Send for Catalog No. 36

**COMMONWEALTH BRASS CORPORATION**

Commonwealth at G.T.R.R.  
Detroit, Michigan

# Hinge Performance

## Hinges on MONEL METAL



## National Lock Company rivets head on pin after assembling the completely finished parts

THE PIN used in the refrigerator door hinge (shown above) is made of Monel Metal.

Since Monel is a solid white metal, this part needs no plating. Thus it's possible to assemble the hinge after the other parts have been plated and finished. For there is no fear that riveting the pinhead will reveal metal of another color.

See the INCO exhibit of Monel Metal Household Appliances at the Century of Progress, Chicago—1934 Home Planning Hall

Moreover, Monel Metal can bear the weight and wear of a heavy refrigerator door. This Nickel alloy has strength to spare. It is tough as steel, as rust-proof as the silver it looks like and it stubbornly resists corrosion.

The smooth surfaces it develops in use result in smooth hinge operation.

But this small but vital part is merely an example of the many functions Monel performs in refrigerating equipment.

For example, The National Lock Co., maker of the hinge, also supplies self-tapping screws of Monel Metal.

Refrigerator door hinge, manufactured by National Lock Co., Rockford, Ill. In foreground are shown samples of the Monel Metal pins used in this hardware.

Display case trim, trays, pans, shelves, false bottoms, coils, bartops, beer coolers are all made of Monel Metal. For it can endure rough handling without denting or scratching. And it has no coating to chip, crack or wear off because it is solid metal clear through.

But above all, purchasers of refrigeration display equipment admire Monel for being easy to keep spotlessly attractive in appearance...shining with "sales appeal!"

THE INTERNATIONAL NICKEL CO., INC.  
67 Wall Street, New York, N. Y.



Monel Metal is a registered trademark applied to an alloy containing approximately two-thirds Nickel and one-third copper. Monel Metal is mined, smelted, refined, rolled and marketed solely by International Nickel.





## Kelvinator Names 213 New Dealers

DETROIT—Kelvinator Corp. announced 213 new dealer appointments for the week ending March 23, according to statements made by officials last week. New dealers are:

Thompson Bros. Hardware Co., Clarendon and Hedley, Tex.; Lorenzo Hardware Co., Lorenzo, Tex.; Olton Hardware Co., Olton, Tex.; Empire Furniture Co., Plainview, Tex.; Auburn Electric Shop, Auburn, Me.; Lew-Burn Electrical Co., Lewiston, Me.

Carroll T. Fuller, Waldoboro, Me.; Deming Ice & Electric Co., Deming, N. M.; R. E. Milburn, Silver City, N. M.; Troy Refrigeration & Home Equipment Co., Troy, N. Y.; Inter-Mountain Hardware Co., Cascade, Ida.; L'Herisson Furniture Co., Jerome, Ida.

Buhl Hardware Co., Buhl, Ida.; Battleson Co., Scobey, Mont.; George Goggan, Alexander City, Ala.; Ludwig Baumann, New York; A. Damsky, Brooklyn; Wm. C. Kelly, Jr., Great Neck, L. I., N. Y.; Balm & Blank, Brooklyn.

Stanley Hubbard, Riverhead, N. Y.; C. M. Perrin, Woodhaven, L. I., N. Y.; Haymarket Hardware Co., Boston; Cohen Sales Co., Boston; Robinson Home Utilities, Quincy, Mass.; John J. Piont, Roxbury, Mass.

Parke Snow, Inc., Waltham, Mass.; Treadwell Electric Co., Worcester, Mass.; Rau & Company, Chicago Heights, Ill.; Nehring & Rose, Crystal Lake, Ill.; Schoenberg Hardware, East Chicago, Ind.; Grand Radio Service, Elmwood Park, Ill.; Zion Department Store, Zion, Ill.; Casey Hardware Company, Casey, Ia.; Stock Hardware Co., Jefferson, Ia.; Vanderwilt & Yarnell, Knoxville, Ia.; Guy L. Tullis, Oskaloosa, Ia.; Pringhar Electric Shop, Pringhar, Ia.

W. H. Cress, Riverside, Ia.; Bauer Electric Shop, Wellman, Ia.; Rynearson & Koch, Inc., Waterloo, Ia.; David's Radio Shop, Reedley, Cal.; Crescent Dry Goods Store, Turlock, Cal.

Midway Service Station, Ayden, N. C.; Holmes Electric Co., Fayetteville, N. C.; Carolina Kelvinator Co., Greenville, N. C.; Scott Electric Co., Georgetown, S. C.; White & Hill, Louisburg, N. C.; Orangeburg Automobile Exchange, Inc., Orangeburg, S. C.

Rocky Mount Furniture Co., Rocky Mount, N. C.; Home Equipment Co., Roanoke Rapids, N. C.; Morrow-Pitt Hardware Co., Tarboro, N. C.; Moss Planning Mill Co., Washington, N. C.; Pearce Hardware Co., Lake Linden, Mich.; F. A. Finley, Easley, S. C.

Cooper Furniture Co., Gaffney and Union, S. C.; James L. Rising, Dayton, Va.; Smith Chevrolet Co., Greenup, Ky.; Service Chevrolet Co., Louisa, Ky.; Inland Steel Co., Wheelwright, Ky.; Happy Hall Lumber Co., Milton, W. Va.; Russell Motor Sales, Russell, Ky.; G. E. Bader, Belleville, Tex.

Connersville Electric Sales, Connersville, Ind.; A. T. Engle & Sons, Winchester, Ind.; Adams Products, Inc., Marion, Ind.; Kelvinator Stanley Co., Tampa, Fla.; Florida Power Co., St. Petersburg, Fla.; Claremore Electric Supply Co., Claremore, Okla.; Hagberg General Store, Cleveland, Okla.; Cordell Radio Shop, Cordell, Okla.; Brown Furniture Co., Elk City, Okla.; W. E. Glynn, Emmett, Kans.; Victory Service Station, Frederick, Okla.; Little Hardware Co., Madill, Okla.; A. J. Crabtree, Mountain View, Okla.; W. W. Henry, Nowata, Okla.

Hughes Radio & Electric Co., Sayre, Okla.; Kapp Radio & Electric Supply Co., Vinita, Okla.; Radio Electric Shop, Weatherford, Okla.; Dugan Electric Co., Wellington, Kans.; Oatman Electric Service, Elizabethton, Tenn.; East Tennessee Electric Co., Knoxville, Tenn.

Exchange Furniture Co., McMinnville, Tenn.; Durand Electric Shop, Durand, Mich.; Quality Store, Ionia, Mich.; Radio Service Shop, Jeffersonville, Ind.; John B. Penn & Co., Georgetown, Ky.; F. B. Koch & Sons, Strasburg, Pa.; Clark Supply Co., Alger, O.; Refrigerator Service, Dayton; Werman & Wolff, Monroeville, Ind.

American Furniture Co., Milwaukee; Poull Bros., Washington, Wis.; Fred F. Mosher, Duluth, Minn.; L. P. Peterson, Luck, Wis.; Robert E. Hogan, New Richmond, Wis.; Midway Creamery Co., Rockford, N. D.

Warren Implement Co., Warren, Minn.; Shannon Auto Sale Co., New Albany, Miss.; West Kentucky Motor Co., Paducah, Ky.; Baker Electric Co., Tupelo, Miss.; Fowler's, Norfolk, Va.; Kenny Kelvinator Sales, Morgan City, La.

Whiting Radio Service, Bridgeport, Conn.; The F. A. Shaffer Co., Inc., Bristol, Conn.; Bonney Electric Co., Fairfield, Conn.; R. L. Stoddard, New Britain, Conn.; C. A. Sharpe, Inc., Northampton, Mass.; Parker Music Shop, Palmer, Mass.

Frank Howard, Inc., Pittsfield, Mass.; H. M. Dayton, Alma, Neb.; Emerald Service Garage, Emerald, Neb.; Fitzsimmons Furniture Co., Oxford, Neb.; L. E. DuBois & Sons, Ashokan, N. Y.; Lipkin Furniture Co., Bethlehem, Pa.; General Supplies Co., Bridgeton, N. J.; Mort Farr, Duxel Hill, Pa.; McKenzie Music Co., LaJunta, Colo.; Dalton's Electric Shop, Millville, N. J.

S. Kotzen & Sons, Inc., Schuck Electric Co., J. Schwartz & Co., and World Tire & Brake Service Co., all of Philadelphia; J. S. Smith Furniture Co., Quakertown, Pa.; Franks Brothers, Inc., Vineland, N. J.; Louis A. Dougherty Co., Wilmington, Del.

Walter H. Grimes, Womelsdorf, Pa.; Post & Lester Co., New London, Conn.; Hines Drug Co., Coolidge, Ariz.; P. N. Smith, Mt. Angel, Ore.; Craycroft Motor Co., Vandalia, Ill.; Ormandy Brothers, St. Helena, Ore.; Floresville Motor Co., Floresville, Tex.; Temple Electric Appliance Co., Temple, Tex.

Jensen Brothers, Irene, S. D.; Perrins, Lodi, Calif.; Sherman Clay Co., Oakland, Calif.; Sherman Clay Co., Petaluma, Calif.; Kelvinator Sales & Service, Sacramento, Calif.; Sherman Clay Co., San Francisco, San Jose, Santa Rosa, and Vallejo, Calif.; S. C. Mitchell, Cassville, Mo.; Radio Shop, Fayetteville, Ark.

F. A. Bowermann, Eau Claire, Wis.; Vernon Ball, Elkhart, Ind.; Atz Furniture Store, Goshen, Ind.; Kabin Hardware Co., La Porte, Ind.; Michael L. Long,

Michigan City, Ind.; C. L. Barnard & Sons, Mishawaka, Ind.; McGowan Sales, Inc., South Bend, Ind.; Sandoz's Furniture Store, South Bend, Ind.

St. Joseph Music House, St. Joe, Mich.; Chinworth & Oram, Warsaw, Ind.; A. B. Kinback & Co., Archbald, Pa.; H. M. Haverly, Clarks Summit, Pa.; B. & B. Supply Co., Dallas, Pa.; Miller Auto Service, Inc., Dickinson City, Pa.

L. H. Baltimore, Duryea, Pa.; John H. Gates, Jr., Kingston, Pa.; Benjamin Trosky, Edwardsville, Pa.; McNichols Garage, Exeter, Pa.; H. H. Wells, Fleetville, Pa.

U. G. Cooley, Forest City, Pa.; W. J. Bone & Son, Gravity, Pa.; G. H. Ryman, Hanesdale, Pa.; C. G. Pickett, Laceyville, Pa.; H. A. Courtright, Millauke, Pa.; Johnson Motor Co., Moscow, Pa.; Parley Wright, Nicholson, Pa.

Lustigs Market, Inc., Olyphant, Pa.; Thomas Trethaway Co., Parsons, Pa.; H. P. Shennen, Peckville, Pa.; Shaffer Electric Shop, Pittston, Pa.; Frank Merritt, Plains, Pa.; Cauley Motor, Plymouth, Pa.; Houser Sporting Goods Store, Scranton, Pa.; Northeastern Radio Co., Scranton, Pa.; Square Hardware Store, Scranton, Pa.; Charles Emmel, Scranton, Pa.; E. G. Scott,

Shickshinny, Pa.; J. V. Morgan, Taylor, Pa.; J. G. Schuler & Co., Inc., Wilkes Barre, Pa.

Rifkin's Furniture House, Wilkes Barre, Pa.; G. L. Prudhon, Wilkes Barre, Pa.; Samuel Carpenter, Wyoming, Pa.; Murphy & Wiganli, Fairport, N. Y.; A. K. Storie & Sons, Gouverneur, N. Y.; Ballantyne & Comfort, Greene, N. Y.; Carroll Electric Co., Lyons, N. Y.

Dyle Hardware Co., Lyons Falls, N. Y.; H. W. Parker, Newark, N. Y.; G. D. Hudson, Oneida, N. Y.; Dorfler's Electric Co., Oneonta, N. Y.; Braun Electric Co., Rochester, N. Y.; C. E. Chappell & Sons, Inc., Syracuse, N. Y.

H. D. Morehouse & Son, Utica, N. Y.; Cherokee Colliery, Ashland, W. Va.; Mill Creek Coal & Coke Co., Coopers, W. Va.; Honaker Harness & Saddlery, Honaker, Va.; Saginaw Colliery, McComas, W. Va.; Red Jacket Consolidated Coal & Coke Co., Red Jacket, W. Va.; Wise Electric Co., Wise, Va.

Warden Bros., Yukon, W. Va.; J. E. Lally, Bridgeport, Ohio; Matthew Bros., Brilliant, Ohio; McMechen Electric Co., McMechen, W. Va.; Barley & Sloane, Harrisburg, Pa.

## G-E Contracts Corp. Opens New Office

NEW YORK CITY—As part of a nation-wide program of expansion, the General Electric Contracts Corp. (organized to provide users and dealers of G-E appliances with an instalment payment service) has opened a district office in the Empire building at 507 Liberty Ave., Pittsburgh.

H. P. Rounds, former assistant district manager of the General Electric Contracts Corp. in Philadelphia, is manager of the Pittsburgh office. He is assisted by F. A. Coulter, former Pittsburgh local representative, and Harold Bown who was transferred from the New York district.

A. C. Kyle is a local representative, located at 1038 Quarrier St., Charleston, W. Va., at the office of the Electric Home Appliance Co.

## Playlet Shows Need For Apt. Remodeling

PHILADELPHIA — Approximately 1,000 Philadelphia appliance dealers crowded into Whittall's auditorium here to see the playlet "Wolves of the Renting Business" presented by the Colonial Stove Co., manufacturer of Colonial kitchen ensembles.

The playlet, produced by Sam L. Cohn, vice president of the Colonial Stove Co., showed the quandary of the real estate agent, with owners on one hand demanding greater revenue while refusing to modernize properties, and on the other hand impatient and delinquent tenants insisting upon modernization of their kitchens.

Models of Colonial kitchen ensembles, complete units for the kitchen, were displayed at the meeting.

## BILL JONES GETS SOME HOT LEADS

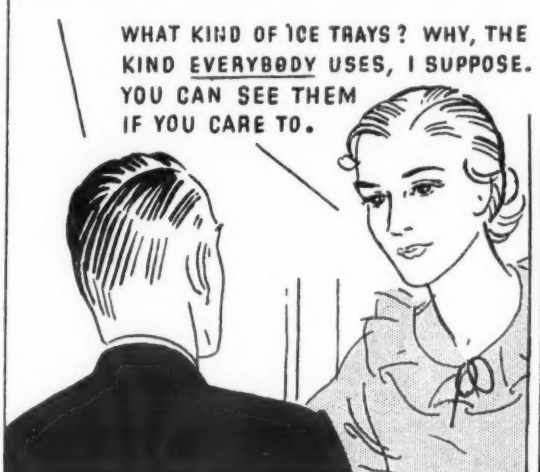
GOOD MORNING, MRS. BROWN. I'D LIKE TO TELL YOU ABOUT OUR NEW 1934 REFRIGERATORS.

YOU'D JUST BE WASTING YOUR TIME. WE ALREADY HAVE AN AUTOMATIC REFRIGERATOR.



OH, I SEE. WELL MAY I ASK WHAT KIND OF ICE TRAYS YOU HAVE?

WHAT KIND OF ICE TRAYS? WHY, THE KIND EVERYBODY USES, I SUPPOSE. YOU CAN SEE THEM IF YOU CARE TO.



M-M-M. DON'T YOU FIND IT A NUISANCE GETTING ICE CUBES OUT OF THESE TRAYS?

YES, WE DO, TO BE HONEST ABOUT IT. IT'S A MESSY, DISAGREEABLE JOB.



THEN I'D LIKE TO MAKE YOU A PRESENT OF SOME OF THESE MODERN FLEXIBLE RUBBER TRAYS. JUST BEND IT—LIKE THIS—AND ICE CUBES POP RIGHT OUT—ONE AT A TIME OR THE WHOLE TRAYFUL.

I'D LOVE TO HAVE TRAYS LIKE THAT IN MY REFRIGERATOR.



ALL RIGHT. JUST GIVE ME THE NAMES OF 5 OF YOUR FRIENDS WHO NEED REFRIGERATORS, AND I'LL GIVE YOU A TRAY FREE FOR EACH ONE WHO BUYS.

WHY I'LL BE GLAD TO DO THAT.



WEEK LATER HERE ARE YOUR FREE FLEXIBLE RUBBER TRAYS. TWO OF THE PEOPLE WHOSE NAMES YOU GAVE ME BOUGHT REFRIGERATORS LAST WEEK.

THAT'S FINE, I'M CERTAINLY GLAD TO GET THE TRAYS.



## Salesmen!...Use Flexible Rubber Trays to get yourselves some extra sales



# INSIST

It will pay you to insist that Flexible Rubber Trays and Grids be included as standard equipment in all the refrigerators you sell. By so insisting, you'll sell more refrigerators—and sell them easier.

The scenes pictured above occur wherever refrigerators are sold. Aggressive sales managers and shrewd salesmen have learned that in addition to their other virtues, Flexible Rubber Trays and Grids are powerful aids in securing new prospects.

The demand for these modern time and trouble savers is growing bigger every day. Already 2,700,000 have been sold—more than a million last year alone. And in 1934, dramatic, forceful, attention-getting advertising in leading national magazines will increase the demand still further.

Today you can't call a refrigerator really modern unless it's equipped with Flexible Rubber Trays or Grids. As a result, all leading refrigerator manufacturers now use them as standard equipment.

For this reason it's a good policy to insist that Flexible Rubber Trays and Grids be standard equipment in all the refrigerators you sell. It's too good a money-making proposition to ignore. So write to the manufacturer of your refrigerator—or direct to us—for full details. The Inland Manufacturing Company, Dayton, Ohio.

## Flexible Rubber Trays and Grids

ICE CUBES THE MODERN WAY



## BY G. F. T.

### 30,247 Customers

Turnstiles which clicked as rhythmically—and as long—as the underbeats in Ravel's "Bolero" were music in the ears of POWEL CROSBY, Jr., manufacturer of Crosley refrigerators and radios, and new president of the Cincinnati Reds baseball team, last Tuesday at the opening of the National League season.

Chicago's Cubs beat the ears off Mr. Crosby's team that day, walking off the field with a 6-0 victory; but what did the Crosby heart good was the cash collected from the 30,247 fans who paid to see the game. Cincinnati's baseball club has been losing money for years; and in Mr. Crosby's first season as owner, he naturally has an apprehensive eye trained on the box office.

Thousands more were turned away from Crosby Field that day. And only the New York-Philadelphia and Washington-Boston games drew more customers on curtain-raiser day in either major league.

### Smoke Got in Their Eyes

Those who did get into the park—and in their number were Advertising Manager EARL DOTY, Sales Promotion Manager LEE CLARKE, Commercial Salesmanager W. D. McELHINNY, and others from Frigidaire, as well as the entire Crosley executive organization, plus Distributor JIM AITKEN of Detroit—saw Pitcher LON WARNEKE of the Cubs turn in a one-hit game. And that was something that this writer, at least, had never seen before in a lifetime which has included the witnessing of several hundred league ball games.

Cincinnati batsmen had but one alibi: "Smoke gets in your eyes" when Warneke pitches. Here the National League had just adopted a new lively ball for the benefit of batsmen, and none of the Reds even got to see it.

They might just as well have stepped up to the plate with toothpicks on their shoulders as bats, for the Arkansas Traveler's curves were breaking wide as the hips of a hippopotamus, and the gulf between the Reds' batting arcs and Warneke's corner-cutting deliveries seemed big enough to drive through the British fleet (note space between bats and balls in pictures on this page).

For eight and one-third innings the universal-jointed pitcher from rural Arkansas held the revamped Cincinnati club hitless. He struck out 13 men—Shiver thrice, the great "Chic" Hafey twice, Manager O'Farrell twice, and Adams, Bottomley, Lombardi, and Piet each once. He whiffed at least one batter in every inning but the first.

In the second inning he struck out the first and only three batters, and then came back to fan the first man up in the third, giving him four strike-outs in a row.

The Reds went out in one-two-three order in all but three innings. Only two men reached first base: Comorosky, who singled, and Hafey, who walked.

That, gentlemen, is pitching! Cincinnati batters were as unhappy as nine radio announcers in the "Silence" room of a public library; while the Chicago outfielders were as lonely as three horseflies in Detroit, and as unemployed as tailors in a nudists' colony. Easy flies by Hafey and Koenig were the only balls that got out that far.

### 30,247 Boos

Did you ever hear a flock of baseball fans boo one of their own hometown players when he made a base hit? Well, it happened in Cincinnati that day. Warneke should have had a no-hit game, and thus become one of baseball's immortals.

When Warneke struck out Pinch-Hitter Lombardi, first man up in the ninth, the crowd deep-throated its approval. Then came up Adam Comorosky, former Pittsburgh Pirate. And, demonstrating that he still has pirate tendencies, Comorosky robbed Warneke of his no-hit game by planting a lazy single between Jorges and Herman.

When that happened, 30,247 fans booed! The ball game was in the refrigerator anyway (we can't use the customary term—"on ice"—in this kolyum!), and Cincinnatians were rooting for Warneke to finish what he had started so successfully.

After Comorosky made Warneke's face as long as an ironing board with that now-famous boomed single, Koenig grounded a spanking one to Warneke, who pegged to second, forcing Comorosky. English then relayed the ball to Capt. Charley Grimm over on first base in time for a double play, but Charley dropped the ball. Piet popped up to English for the last out, and the game was over.

Like a flock of schoolboys, the seasoned Chicago players rushed to the pitchers' box, hoisted the gangling Warneke to their shoulders, and carried him off the field with great whoops.

### How the Six Runs Were Made

Although the Reds didn't get much chance to show their wares with the stick, they did get plenty of practice picking up fast grounders, stopping line drives that went through the air so fast they whined like a super-charger, and shagging long flies, for the Cubs were peppering the new lively ball to all corners of the park.

And the customers saw that Mr. Crosby has a fast, slick gang of fielders out there this year, for there were some dandy stops. Notable example: "Sunny Jim" Bottomley, ex-leading citizen of Nokomis, Ill., in the first inning legged himself into short right field, grasshoppered up on a bullpen bench, balanced himself on one leg like a street carnival tight wire walker, stretched his gloved hand out into the stand, and snared Billy Herman's pop foul. It was one of the grandstandiest plays of all time.

The Cubs got their first run in the third frame with the help of a passed ball (it might just as easily have been called a wild pitch). Hartnett singled, Warneke fouled out, English fanned, and a passed ball advanced Hartnett to second. He romped home when Billy Herman boosted the ball over second base for

## Faster Than the Eye



Detroit newspapermen to whom this picture was shown declare it to be one of the most remarkable sports action photos ever taken. Snapped at 1/1000th of a second, it stopped one of Pitcher Lon Warneke's fast balls just before it entered the mitt of Catcher Gabby Hartnett. Chick Hafey, star Reds batter, has missed it a mile. Warneke's fast balls were practically invisible to the Reds all afternoon. Like the other pictures on this page, this was taken at the Cubs-Reds season opener at Cincinnati by the editor. A miniature camera equipped with a telephoto lens was used.

another single. Klein skied out to Hafey to end the inning.

Silas Johnson, 24-year-old Reds pitcher, was making it a pretty good ball game for the first five innings. But in the sixth inning the Cubs went on a rampage, and Reds fielders were as busy as a circus spotlight man during a flying trapeze act.

Billy Herman singled sharply. Then came Chuck Klein, formerly of Philadelphia, and last year's leading batsman of the league. Klein the Great exploded one of Si's offerings with the loudest report heard in Cincinnati ballroom since the news broke that Powel Crosby would take over the Reds.

When the ball finally got bored with its flight and decided to return to its hangar, it found itself in the outstretched hands of a rooter in the right-field bleachers. Since it scared Herman also, that made the count 3 to 0.

But the Cubs had just begun. Eabe Herman fanned again (he windmilled four times that afternoon, which pleased the Cincinnati fans mightily and audibly, for Babe used to play for the Reds), but Stainback singled. Grimm then larruped out a long single to left center.

Recruit Stainback, subbing for Cuyler, rounded the bases and was home before folks realized what was happening. Grimm stole second, and after Jorges fled out to Shiver, Hartnett scored Grimm with a single to center field. Warneke's out ended the inning. Score: Cubs, 5; Reds, 0.

Next inning found Benton on the mound in place of the still unruffled Johnson. He got along all right that inning, but in the eighth he was nicked for the Cubs' sixth and last run.

Stainback hit what was obviously a single, but stretched it into a two-bagger with a dazzling sprint for second base. Grimm fouled out to Slade, who made a prodigious catch, hitting the left-field bleachers screen, but hanging onto the ball just the same. Jorges fled out to Comorosky. Benton elected to pass "Gabby Hart-

nett (whose waistline, incidentally, has expanded since last we saw him—he should practice Girth Control) in order to get at Pitcher Warneke, a perfectly natural procedure.

But Warneke proceeded to cross up this strategy with a single to right which scored Stainback and sent Hartnett to third.

English ended the inning and the scoring, however, by popping up a foul to O'Farrell.

### Revenge for Warneke

Not only did Warneke have the satisfaction of pitching one of the most brilliant one-hit games on record, but he also had his revenge on Cincinnati.

In 1932, his freshman year under the big tent, Warneke led the National League in games won, by copping 22 victories. He lost but six games that year, and was chiefly responsible for the Cubs winning the pennant.

Last year he ranked second to Carl Hubbell of the New York Giants in effectiveness, winning 18 games. Had he been able to lick the lowly Reds, he would have again been the league's leading pitcher; but the Cincinnati club humbled him five times.

Maybe that explains why he was so stingy with the Reds in that opening game.

### Orchids to Stainback

When "Kiki" Cuyler bruised a finger and suffered an infection, the Cubs substituted young George Stainback in center field.

Owner Phil Wrigley of the Cubs obtained Stainback from the Pacific Coast League by plunking down a cow-choking wad of dough. Whatever it was that the chewing gum impresario paid for this recruit, it's our guess that he will be worth it.

In the first place, he's as fast as a souped racehorse. He stretched an obvious single into a clean double. He scored from first base on Grimm's

single, a feat he had no more business doing than he had walking into Mayor Russell Wilson's box and tweaking His Honor's nose.

And can he hit! Silas Johnson is a good pitcher, the ace of the Reds' mound staff. Until that disastrous sixth inning, Si had held the Cubs pretty well in check. But Stainback found Johnson's offerings as easy to meet as a girl who thinks you can get her a screen test. He didn't whiff once.

This kid works as hard as an immigrant boy who hasn't heard of Planned Economy and who still thinks that this is the Land of Opportunity. Mark this prediction, and remember who told you: Stainback is headed for the top ranks of the Big Timers.

### Personal Jottings Between Innings

It was the finest day we've ever seen for a ball game. Just warm enough, and all the sun you could want for your nicker. Best day we've experienced—Bermuda included—since last summer.

Our sympathies were a bit divided. Knowing and liking the Crosleys and their official family, and being their guest, we naturally felt amicable toward the Cincinnati cause. But we've been a Cubs follower for a long time, too. All one season (1928) we edited for a morning paper the Cubs box score every night.

We've attended a lot of baseball games as a writer, but never before as a photographer. It's fun. Pictures on this page were taken with the aid of a telephoto (telescopic) lens, and action was stopped by using shutter speeds of 1/500th and 1/1000th of a second.

L. A. KELLOGG, vice president of the Crosley Distributing Corp., is another industry executive who is also a camera enthusiast, and was very much interested in the proceedings. Mr. Kellogg thinks the most unusual picture which has ever appeared in the News was that of Ina Ray in the "Follies," which was published on this page in the April 11 issue.

### Eightieth Birthday

JOHN LEWIS, vice president and general manager of the Gibson Electric Refrigerator Corp., celebrated his eightieth birthday April 19.

With a record of 57 consecutive years in the refrigerator business, Mr. Lewis is generally credited with being the oldest active refrigerator maker in the industry throughout the nation. And insofar as we know, this title would apply equally well to the whole world.

In 1876 Mr. Lewis entered the refrigerator business in Chicago. At that time he had been in the United States but three years.

From that year until 1884, Mr. Lewis engaged in the manufacture of refrigerators in Chicago. In the latter year, Mr. Lewis became associated with the Belding Mfg. Co.

In 1892 he came to Greenville with F. E. Ranney and C. T. Ranney when the Ranney Refrigerator Co. was organized.

In November, 1908, he left the Ranley company to become associated with the late FRANK S. GIBSON in the organization of the Gibson Refrigerator Co. Since then he has been vice president and general manager.



(1) Cincinnati players in their dugout watch Mayor Russell Wilson (2) throw out the first ball. (3 and 4) President Powel Crosby, Jr., mingles with the players before the game starts.



(1) Jim Bottomley of the Reds races for first base, which is covered by Manager Charley Grimm of the Cubs. (2) Red's Pitcher Si Johnson. (3) Chuck Klein of the Cubs lets a high one go by into the big mitt of Manager Bob O'Farrell of the Reds. (4) George Stainback, promising Cub recruit, slides home safely after running all the way from first base to score on Grimm's single. (5) This picture, taken a moment before the preceding one, shows Stainback taking a short lead off first, while Bottomley guards the initial sack.



## TREND OF BUSINESS

### Norge Payroll at Muskegon in March Totaled \$201,843

DETROIT—March payroll of the Muskegon plant of the Norge Corp. amounted to \$201,843, according to a statement made last week by Howard E. Blood, president of Norge Corp.

This compares to a payroll of \$37,329 in March, 1933, or an increase of 440 per cent in wages paid out over last year.

"That Norge Corp. is complying with the NRA is shown by the fact that while employment for the first quarter of 1934 was 95 per cent greater than the like period last year, wages paid were 155 per cent greater than those paid in the first quarter of 1933," Mr. Blood declared.

According to Mr. Blood, the average base wage scale during the past nine months has increased more than 25 per cent, and more than 1,100 employees have been added to the Norge payroll since Jan. 1, 1934.

Orders received for the first quarter were equivalent to 60 per cent of the entire 1933 production, according to Mr. Blood.

### Leonard's March Sales Better Than Year Ago

DETROIT—Its former March shipment records were shattered by Leonard Refrigerator Co. last month when shipments from the Detroit plant increased approximately 120 per cent over those for March, 1933, according to H. W. Burritt, vice president in charge of sales. The previous high was made in March a year ago.

### Brunner Refrigeration Sales Increase

UTICA, N. Y.—Brunner Mfg. Co. commercial refrigeration sales for the first quarter of 1934 showed an increase of 146 per cent over the like period in 1933, according to W. C. Allen, vice president in charge of sales.

April sales volume on refrigeration was double that of March, according to Mr. Allen.

### Alter Firms Merged to Form One Company

CHICAGO—Merger of Harry Alter, Inc., northern Illinois distributor for Grunow refrigerators and radios, and Harry Alter Supply Co., jobbers of Grunow radio parts, refrigeration parts, appliances, and accessories, to form the Harry Alter Co., was announced last week.

All operations are being moved to new quarters at 1728 S. Michigan Ave. Officers of the new company are Harry Alter, president; Arthur S. Alter, vice president; Ben Mostow, vice president; and Irving C. Alter, secretary-treasurer.

### Refrigerator Costs \$14.50 To Run One Year

SCHENECTADY, N. Y.—C. M. Ripley of the General Electric Co., who has an all-electric kitchen installed in his home, has just completed a year's check on the cost of operating the major appliances.

"Check-up" meters were installed to measure the current used. These showed that the refrigerator used 483 kwh. during the year. At the rate of 3 cents per unit, it cost him \$14.50. The range consumed 918 kwh. over the one-year period and at the rate of 3 cents per unit, cost a total of \$27.54.

Mr. Ripley's dishwasher was operated at an average cost of 1½ cents per week.

### Product Folders Issued By Universal Cooler

DETROIT—New product folders on the 1934 Universal Cooler line, both household and commercial, have just been published, according to Gordon Muir, advertising department of Universal Cooler Corp.

### Kirchbaum Sells 19 Kelvinators in Day

DETROIT—Nineteen Kelvinator sales in one day in April, and a March, 1934, increase of 6,000 per cent in refrigerator business over the same month last year, are the records claimed by M. H. Kirchbaum, Kelvinator dealer in Sioux City, Iowa.

### Westinghouse Beats April, 1933, Total In First 7 Days

MANSFIELD, Ohio—Orders from distributors for Westinghouse refrigerators during the first seven days of April totaled more units than orders received during the entire month of April last year, according to R. C. Cosgrove, manager of the refrigeration division, Westinghouse Electric & Mfg. Co.

If the factory receives orders for the balance of the month at the rate established during the first week, the total for the month will be approximately 40,000 units, an all-time record for Westinghouse, Mr. Cosgrove declared.

Westinghouse refrigerator sales for the first quarter were 30 per cent higher than the figure for the first quarter of 1933.

### Frigidaire Reports Large Sales Gain

DAYTON—Household refrigerator sales to purchasers by the Frigidaire sales organization were 432 per cent higher in March than in February and 164 per cent higher than in March of last year, it was reported today by E. G. Biechler, president and general manager of Frigidaire Corp.

Sales of commercial refrigerating equipment in March increased 71 per cent as compared with the same period a year ago.

Even the sale of refrigerators for apartment houses, a course of business that has been dormant for a number of years, showed an increase, Mr. Biechler said.

### All Westinghouse Orders For First Quarter '34 Total \$20,100,000

EAST PITTSBURGH, Pa.—Orders booked by the entire Westinghouse Electric & Mfg. Co. for the first quarter of 1934 totaled approximately \$20,100,000 as compared with \$12,850,000 for the first quarter of 1933, an increase of almost 57 per cent, F. A. Merrick, president of the company, told stockholders at the forty-eighth annual meeting held here last Wednesday.

"Manufacturing activities for March are higher than for any month since December, 1931, and the outlook for the months immediately ahead is encouraging," Mr. Merrick declared.

Two new directors were elected, and five other directors now serving on the board of directors were re-elected at the meeting.

New directors elected were A. L. Humphrey, chairman of the board of Westinghouse Air Brake Co., and H. S. Wherrett, president of the Pittsburgh Plate Glass Co.

Directors re-elected for the term expiring April, 1933, were Jerome J. Hanauer, financier of New York; W. L. Mellon, chairman of the board of the Gulf Oil Corp.; F. A. Merrick; George M. Verity, chairman of the board, American Rolling Mill Co. Re-elected for the term expiring April, 1935, was Winthrop W. Aldrich, chairman of the board, Chase National Bank of the City of New York.

### General Electric Bills \$34,936,000 Sales In Quarter

SCHENECTADY, N. Y.—Sales billed by all divisions of the General Electric Co. for the first quarter of 1934 amounted to \$34,936,000, which compared with \$26,101,000 for the same quarter a year ago, showed an increase of 35 per cent, President Gerard Swope announced to stockholders of the company at their annual meeting here April 17.

Profit available for dividends for the quarter was \$4,566,000, compared with \$2,839,000, an increase of 61 per cent. After payment of dividends on the special stock, profit available for dividends on the common stock for the first quarter amounted to \$3,922,000, compared with \$2,195,000 for the same period in 1933.

This, Mr. Swope pointed out, is equivalent to 14 cents per share for the quarter, as compared with 8 cents per share for the first quarter in 1933, 14 cents for the last quarter in 1933, and 16 cents per share for the first quarter in 1932.

Orders received during this first quarter of 1934 amounted to \$38,149,000, compared with \$25,512,000 for the same quarter in 1933, or an increase of 50 per cent.



## NEW ALL-STEEL SERVICE BARS

By

# Seeger

SAINT PAUL

Seeger presents an opportunity to Dealers and Distributors of Electrical Refrigeration for increased sales and larger profits, in the sale of the New Line of All-Steel Service Bars—strictly modern in design, beauty and utility.

These New Seeger All-Steel Service Bars with sectional construction have many advantages—strength, rigidity and sanitation. They are vermin-proof and absolutely impervious to moisture and climatic conditions.

The Front Bar, beautiful "ribbon type" grain all-steel panels—new sectional construction, joined by cleverly designed scribing pieces with concealed bolts. The Bar is finished with a New Style bar top, and a black porcelain "kick-plate" at the floor.

The Work Table under the front bar, which, because of the sectional type of construction, provides an almost unlimited number of practical and convenient arrangements.

The Back Bar is a marvel of beauty—the high back section constructed of panels of rich French Butt Walnut, grained on steel plates—divided by strips of chromium, and jointed at each end to splendidly shaped steel columns of black and ribbon grained walnut. Modernistic shaped mirrors of heavy bevelled plate (at slight additional cost) complete a most artistic bar.

The lower section of the Back Bar is a combination of steel cabinets and drawers—and a four foot center electric lighted step display.

Seeger All-Steel Service Bars come in standard lengths from 8 ft. to 20 ft. or special lengths may be had for special requirements. Seeger sectional construction offers an unlimited selection of sizes and arrangements.

Write for Literature to

## SEEGER REFRIGERATOR COMPANY

SAINT PAUL, MINNESOTA

New York — Los Angeles — Chicago — Boston — Buffalo  
Philadelphia — San Francisco



## ELECTRIC REFRIGERATION NEWS

Registered U. S. Patent Office  
Copyright, 1934, by Business News Publishing Co.

The Newspaper  
of the Industry



Written to Be  
Read on Arrival

Published Every Week by  
**BUSINESS NEWS PUBLISHING CO.**  
Detroit, Mich.

Editorial and Advertising Departments,  
5229 Cass Ave., Phone Columbia 4244.

Subscription, Accounting, and Production Departments,  
550 Maccabees Bldg., Phone Columbia 4242.

Subscription Rates—U. S. and Possessions and all  
countries in the Pan-American Postal Union: \$3.00 per year;  
2 years for \$5.00. Canada: \$6.00 per year (due to special  
tariff). All Other Countries: \$5.00 per year (U. S. Money)

**F. M. COCKRELL, Publisher**

**GEORGE F. TAUBENECK, Editor**  
**JOHN T. SCHAEFER, Engineering Editor**  
**PHIL B. REDEKER, Assistant Editor**  
**ELSTON D. HERRON, Staff Writer**  
**A. J. CUTTING, Statistician**

**GEORGE N. CONGDON, Business Manager**  
**HOWARD W. MATEER, Advertising Manager**  
**JOHN R. ADAMS, Production Manager**

Member, Audit Bureau of Circulations  
Member, Associated Business Papers  
Member, Periodical Publishers Institute

VOL. 11, No. 17, SERIAL NO. 266, APRIL 25, 1934

## Record Production

**FRANK PIERCE**, sales manager of Frigidaire Corp., concurs with Vice President T. K. Quinn of General Electric and Vice President John Knapp of Norge in the belief that the industry should sell around a million and a half electric refrigerators in 1934. Messrs. Quinn and Knapp made public predictions of that sort at the beginning of the year. Conservative Mr. Pierce, now that he has seen the returns for the first quarter, as well as noting the impressive backlog of unfilled orders for Frigidaires, has admitted to the editor of the NEWS that every visible sign and indication points toward a business at least one-and-a-half times that of 1933, the best previous year in refrigeration history.

Salesmanager A. M. "Mike" Sweeney of General Electric Co. goes further. He thinks that the manufacturers in the Nema group alone will sell a million and a half units in 1934. Mr. Sweeney has taken the Nema figures for the first quarter of 1934, and projected from them a curve for the rest of the year based on the 1933 Nema sales curve. He thus arrives at a figure close to 1,500,000. In other words, if Nema sales for the remainder of 1934 run greater than 1933 sales in the same proportion as they did for the first quarter, at the end of the current year the one-and-a-half million mark should be reached by this group of manufacturers.

At first the prediction of 1,500,000 sales of household electric refrigerators seemed a little too hopeful. The industry has been striving and straining for years to top the million mark; and just barely did make it last year. Prices are higher in 1934; saturation is greater; there are not so many competitors as there once were. Balanced against these considerations is the very important one that the nation seems to be in the best buying mood it has experienced since 1929 and, furthermore, that it has some money jingling in its collective pants pocket with which to indulge that mood.

Theories and arguments, however, have not nearly so much weight as the undeniable fact that factories all over the industry are busier now than they ever have been before. Almost every plant in the industry started the year with increased capacity; yet today they are running full time without being able to keep up with steadily mounting orders.

General Electric, at the time of this writing, is turning out 6,500 Monitor Tops a week at Schenectady, and 2,700 Flat Tops a week at Fort Wayne. And Salesmanager Sweeney says his order department is so inundated with work that it reminds him of the famous rush of April and May last year, when idle factories were caught off guard by an unexpected avalanche of orders.

Frigidaire, which possesses the biggest refrigerator factories in the world, has a plant

capacity of more than 2,000 units a day, and at the present moment those factories are operating on a full 24-hour-a-day schedule. The formidable reserve of unfilled orders now on hand should keep the plant running like that for some time to come. Frigidaire officials state that April will exceed all records for shipments from the Dayton factories.

The big Kelvinator plant in Detroit and the also big Leonard plant in Grand Rapids are being pushed at top speed by production executives. The present production schedule is 2,000 units a day. April shipments, according to Vice President Henry Burritt, will run more than 2,000 units daily; while orders received in April will be represented by a still higher figure.

Over at Mansfield, Ohio, the Westinghouse factory is turning out 15,000 refrigerators a month—its top capacity. Anticipating this season's unprecedented demand, Westinghouse last year built a monster warehouse at Mansfield, and stocked it in advance with 40,000 refrigerators. By the end of May, according to Manager Ray Cosgrove, this reserve stock will be cleaned up. Some 30,000 units will be shipped in April.

G. M. Johnston's new and bigger Universal Cooler plant is manufacturing 350 machines a day on a five-day-week schedule, with customers pressing hard for more deliveries. Mr. Johnston is working toward a goal of 500 machines a day.

Norge production is running approximately 5,000 refrigerators a week, according to President Howard E. Blood, with unfilled orders piling up at a steady rate.

Crosley is making 1,000 refrigerators a day, which is exactly twice as many Shelveadors as were being turned out at the peak of the 1933 season. In 1932 Crosley's best production was 250 a day, which means that each year since he started in the refrigeration business, Powell Crosley, Jr., has had to double production. What makes the Crosley figures even more impressive is the fact that the Cincinnati factory was in production on the 1934 lines early in December of last year, and by the first of this year had piled up quite a warehouse stock. But in spite of this head start, and notwithstanding the doubled production, unfilled orders are accumulating at a rate very discouraging to the shipping department.

General Household Utilities plants in Chicago are putting out about 700 Grunow units a day, with the unfilled order situation becoming alarming.

Similar stories could be told about other manufacturers. The net of the situation is that the refrigeration industry today can't keep pace with the demand for its products.

All this is an arresting change from the situation of a year or two ago when, even though the industry was defying the depression and moving forward to new sales peaks almost every year, the refrigeration business was said to have a vast excess of plant capacity.

In those days the head-shakers used to point to the Frigidaire factory and say that this plant alone could manufacture all the refrigerators that the industry would sell in a year. Likewise, they said, Kelvinator, General Electric, or Majestic could each supply the total demand.

This year the big Majestic plant is not in service. And because of reorganizations, Copeland, Trupar, Zerozone, and Gibson got off to late starts. Servel has quit the household electric refrigeration field. Several small producers seem to have disappeared. All in all, the production facilities of the refrigeration industry have been materially reduced this year.

In conjunction with this fact, it should be noted that the former verdict of an excess manufacturing capacity industry was predicated on sales of less than a million units a year, whereas this year major executives look for a total of at least a million and a half.

Two new manufacturers of considerable importance, Stewart-Warner and Fairbanks, Morse—both in Chicago—have entered the business. But their advent isn't disturbing older members of the industry. This season, at least, it looks as if every manufacturer in the business will be able to sell all the refrigerators he can make—and then some!

## Comment on the 1934 Refrigeration Directory

### Not Dead Yet!

Electric Refrigeration Bureau  
Edison Electric Institute  
420 Lexington Ave., New York City  
April 18, 1934.

Editor:

The 1934 REFRIGERATION DIRECTORY AND MARKET DATA BOOK has been received.

I like the appearance of this book very much. In fact I think it is away ahead of the 1932 DIRECTORY, and I do not believe that the paper cover is such a drawback as you might believe. The arrangement of material is excellent and from my examination of it, it seems to be exceptionally complete.

There is one thing which caught my eye and that is on page 666 where under the heading of Electric Refrigeration Bureau you state that "apparently, however, 1933 was the last year of this cooperative endeavor." This, as you know, is not in keeping with the fact and should have been corrected by someone before publication. Some one in your organization must have known that you have been receiving advertising copy from the bureau this spring and that you had been advised early in the year that the bureau was to continue actively until July 1 with strong possibility of completing the year. Early in January the plans of the bureau for the first six months of this year were announced.

Aside from this one mistake we think that the book is all right and will have no hesitancy in recommending the purchase of it in response to telephone and letter inquiries for complete refrigeration data.

G. N. BROWN,  
Refrigeration manager.

### Westinghouse Service Contract

E. E. Rivers  
Jeweler and Optometrist  
Tucumcari, N. M.

April 21, 1934.

Editor:

I am in receipt of my copy of the 1934 REFRIGERATION DIRECTORY and am disappointed that you do not show a one-year guarantee plus a four-year service contract on Westinghouse refrigerators, the same as G-E.

I am the local Westinghouse dealer. Your book shows only one-year guarantee on both the cabinet and system.

E. E. RIVERS.  
Answer: The Westinghouse four-year service plan was announced March 28, which was after the DIRECTORY went to press.

EDITOR.

### New G-E Models

General Electric Co.  
Electric Refrigeration Department  
Nela Park, Cleveland  
April 19, 1934.

Editor:

You certainly are to be complimented upon the completeness of your new refrigeration directory.

I don't know whose fault it is, but I noticed that in cataloging our domestic models you included none of our 1934 models; and these, of course, are the only ones we are featuring in any promotion.

P. B. ZIMMERMAN.  
Answer: General Electric's 1934 models were not announced until the last week in March, which was after the DIRECTORY went to press.

EDITOR.

### Something Significant

M. Glen Miller Advertising  
8 S. Michigan Ave., Chicago  
April 19, 1934.

Editor:

In studying over the refrigerator specifications in your last domestic specifications issue, I was struck by an apparent reluctance on the part of manufacturers to list the type of insulation used. In last year's specification issue, there were very few makes which did not show insulation, and I am wondering if there is not something significant in this tendency to avoid any mention of insulation.

M. GLEN MILLER.

### Industrial Group Sells 8,026 Machines

Refrigerating Machinery Association  
23 S. 52nd St., Philadelphia  
April 17, 1934.

Editor:

I herewith acknowledge receipt of the new 1934 REFRIGERATION DIRECTORY AND MARKET DATA BOOK, and wish to compliment you on this new edition.

I should like to suggest a correction on the Refrigerating Machinery Association report on page 476. We have just been able to complete our 1933 statistics and there is quite an error in the number of machines and total tonnage for 1933.

The total number of machines sold in 1933 by 13 reporting members of

our association is 8,026. The total tonnage is 55,314, and the average tonnage per machine is 6.89.

While these reports come from only 13 members, I am safe in saying that this represents fully 90 per cent of the refrigerating machinery industry, exclusive of the commercial machines of the so-called household refrigerating machinery group.

FRED NOLDE,  
Secretary.

### Long Felt Want

Department of Commerce  
Bureau of the Census  
Washington, D. C.

April 21, 1934.

Editor:

We have many calls for refrigeration data and the other statistics which are contained in your DIRECTORY. You may count upon us for any data that we have available for your use. Your publication fills a long-felt want.

Z. R. PETTET,  
Chief statistician for agriculture.

### Most Complete

The Des Moines Register and Tribune  
Des Moines, Iowa  
April 18, 1934.

Editor:

We are in receipt of the 1934 REFRIGERATION DIRECTORY AND MARKET DATA BOOK and wish to compliment you upon this issue for 1934.

Obviously, it is impossible for me to say that I have completely gone through this publication in this short time. However, from careful examination of the contents, the books seems most complete. It is a book that should be invaluable to any person or company that has any interest whatsoever in the refrigeration industry. We expect to make a great deal of use of it during the coming year.

HAROLD E. MIDDLETON,  
National advertising.

### Good Condensation

Stewart-Warner Corp.  
1826 Diversey Parkway, Chicago  
April 19, 1934.

Editor:

I find right now the most valuable part of this book is the statistical information regarding performance of the industry during the past years, and regarding market potential.

We, of course, have all of this information, but it is scattered all over the shop. The fact that you have condensed it is great.

CHAS. R. D'OLIVE,  
Refrigeration sales manager.

### More Convenient and More Comprehensive

Commercial Refrigerator Manufacturers Association  
111 W. Washington St., Chicago  
April 16, 1934.

Editor:

Our examination of the new 1934 DIRECTORY indicates that it is much more comprehensive than previous issues, that the information is presented in a more convenient form.

The great amount of attention you have given to industry statistics increases the value of the DIRECTORY to the point where we feel a copy should be in the hands of every executive in any way interested in, or connected with the refrigeration field.

PAUL H. SULLIVAN,  
Executive secretary.

### Mr. Crosley Owns A Newspaper, Too

The Crosley Distributing Corp.  
160 E. Illinois, Chicago  
April 18, 1934.

Editor:

Your article "If I Had a Million" in the current issue of ELECTRIC REFRIGERATION NEWS is certainly good. You make a statement in this article, however, that the only accomplishment you could suggest to Mr. Crosley would be the ownership of a newspaper. I understand that Mr. Crosley bought the *Sarasota News* at Sarasota, Fla., about a month before your article was written.

C. S. TAY,  
Manager.

### He's Invented an Ice Cube Belt

M. Hirsch  
Frankfurt (Main) 1, Germany  
April 10, 1934.

Editor:

In No. 13, March 28, 1934, page 4 columns 4 and 5, you publish an illustration of an Ice-Cube-Belt asking "Can it be done." I beg to hand you enclosed my German patent 552,458 dated from 6th June, 1931. You see it can be done.

Trusting that this information is of interest to you.

M. HIRSCH.



## SELLING PLANS

### Associated System Opens Cooperative Campaign May 14

NEW YORK CITY—The annual "Refrigeration Jubilee," refrigerator sales drive of the Associated Gas & Electric System, is scheduled to open May 14, and will last until June 30, with a quota of 12,836 electric refrigerators and 480 gas refrigerators set by officials in charge of the campaign.

The three-point Jubilee program embodies (1) company activity through the system's own sales organizations or dealer training plans; (2) dealer cooperation by enlisting participation of all dealer outlets; (3) employee coordination to develop prospects for company and dealers.

Most successful sales accomplishment made by the Associated System was the record hung up by its own sales organization during the 1930 Jubilee. Interest in the activity was sustained through its "Cold Air Derby Contest" with Admiral Byrd at the South Pole as the objective. With Admiral Byrd at the South Pole again this year the contest will be revived under the name of "Cold-Air" Sweepstakes.

"Planes" will be entered by each operating group. The group manager will act as "Commander" with the new business manager as "Pilot." There will be a gas squadron and an electric squadron. Additional incentive may be given by offering prizes to salesmen, supervisors, dealers, employees, and team captains.

The groups entered, with their commanders and pilots, respectively, are as follows: Central New York, H. O. Palmer and H. L. Coleman; Eastern New York, J. R. Ramsey and W. G. Rhodes; East Penn-New Jersey, E. H. Werner and L. Weiss; Electric & Gas Utilities, H. V. Armstrong and E. E. Linburg; Florida, C. H. Courser and H. R. Cloud; K-T-I-M, H. D. Fitch and M. McKinney; Louisiana, H. R. Bodemuller and J. R. Gaugler; New England, F. H. Golding and W. G. Keay; Northwestern New York, H. Russell and F. M. Houston; Patchogue, E. E. Hawkins and G. J. Clute; South Carolina, N. H. Coit and E. E. Leier; South Central New York, C. S. Banghart and C. R. Rudy; Southwestern New York, F. H. Hill and T. S. Craig; Southwestern U. S., G. C. Hyde and F. B. Ostermueller; Staten Island, F. D. Campbell and W. G. Burrill; Northwest Pennsylvania, L. H. McCray and L. A. Clavin; Southwest Pennsylvania, P. H. Harris and J. R. English.

Jubilee results will be based on sales by the company and dealers. Sales by dealers will not count in the "Cold Air Sweepstakes."

Within the System, it is being recommended that salesmen receive the following compensation for obtaining cash sales or a reduction in terms or a higher down payment during the period of the campaign: \$2 bonus for cash sales; \$1 bonus for reduction to terms of 12 months where the time payment chart calls for 18 months or more; \$1 bonus for obtaining a \$25 down payment where the terms call for less than \$25; \$2 bonus for obtaining \$50 or higher down payment where the terms call for less than \$50.

Promotion among dealers during the period of the campaign will be designed to show them the advantages of a full cooperative activity, to impress upon them the importance of working on prospects developed by employees, and to tie in the local bureau or association activity with the Jubilee.

Dealers will also be made fully acquainted with the rates of the Associated Gas & Electric System, so that they can show a dealer exactly how much it will cost to operate a refrigerator.

Employee coordination will be fostered through the bonus and point award system.

Advertising for the campaign is being prepared by Dr. Starch and his staff. Newspaper advertising will be supplemented by mailing pieces, billboard posters, and truck posters.

### Rex Cole Helps Open Gimbel Kitchen

NEW YORK CITY — The Gimbel Kitchen Center of Gimbel Bros. department store staged a four day (March 20-23) program featuring General Electric home appliances. Miss Althea Lepper and the Rex Cole, Inc., home service staff cooperated in putting on the program.

The Rex Cole Mountaineers entertained during the show, and the features of the new General Electric refrigerator were outlined by E. H. Campbell, manager, sales promotion department, Rex Cole, Inc.

### Flat Rate on Gas Boosts Sales for Electrolux

TAMPA, Fla.—A "flat-rate, no-meter" provision for the operating cost on Electrolux gas refrigerators resulted in the sale of 60 air-cooled Electrolux models from Jan. 15 to Feb. 15, according to Sales Manager Harry Dossel of the Tampa Gas Co.

This sales total was two-thirds of the company's entire refrigerator sales in 1933.

The rate plan is based on a flat monthly payment, and is guaranteed by by-passing the meter, or by tapping in the refrigerator connection ahead of the meter so that the amount of gas used by the refrigerator is not registered.

Under this system, each different Electrolux model is given a rate which, regardless of weather or refrigeration requirements, does not vary from month to month.

Inauguration of the plan was heralded by an extensive newspaper campaign with copy headlines such as "Now! Automatic Gas Refrigeration at the Same Low Cost Every Month," and "22 Cents a Day Pays for a New Gas Refrigerator—and Pays Operating Expense Also."

### Church Organizations Furnish Prospects

DES MOINES, Iowa — Women's church organizations are being used to provide new prospects for Ginsberg's, local Westinghouse dealer.

According to F. H. Wulff, manager of the refrigeration department, it is explained to such organizations that Ginsbergs desired to hold a store demonstration, and that the management would pay 10 cents for each person brought into the store for the group demonstration.

With the prospect of swelling their church society funds, four different organizations booked reservations for the first week, attendance at each demonstration averaging between 50 and 75 persons.

The program at the group demonstration included two films, an address by a home economist on how to use the refrigerator, and the serving of refreshments made during the demonstration.

After the films were run, cards were passed out, on which each guest wrote her name and address and stated whether or not she had an electric refrigerator.

### Albany Dealers Issue Leonard Supplement

ALBANY, N. Y.—An 8-page special section devoted exclusively to publicity and advertising on the 1934 Leonard electric refrigerator line appeared in the Sunday, April 15 issue of the Albany Times Union, under the sponsorship of the E. S. & E. Co., distributor of Leonard refrigerators in Eastern New York.

Dealers who placed copy in this special section included the Swire Radio Store, Standard Furniture Co., C. J. Bernhardt, Inc., H. S. Braun, E. G. May, McClure & Dorwaldt, and John G. Myers Co., all of Albany; Peter DeCarlo, Cohoes, N. Y.; The Carl Co., Schenectady, N. Y.; Walsh Motors, Watervliet, N. Y.; G. E. Van Vorst Co., Scotia, N. Y.; Herman Katz, Troy, N. Y.

### 1,000 Kelvinator Men Seek I.K.S.C. Degree

DETROIT — Approximately 1,000 International Kelvinator Sales Club members will be in a position within the next six weeks to qualify for the "Domestic Refrigeration Engineer" degree, according to George Wilcock of the Kelvinator sales promotion department.

At that time the twelfth issue of the I.K.S.C. "Sales Slants" will have been released, and those who have maintained average grades of at least 85 per cent on the lessons conducted through this publication of the Kelvinator sales promotion department will be sent diplomas.

### Model Kitchen Installed In Merchandise Mart

CHICAGO—A replica of the "Century of Progress Health Kitchen" has recently been installed in the General Electric exhibit on the 14th floor of the Merchandise Mart.

Appliances in this kitchen included a refrigerator, range, and dishwasher, as well as small appliances.

## Fashions of 1934 - - In Refrigerators and Dress



Five Westinghouse refrigerators and eight very pretty dress models took part in the fashion revue which was the hit of the refrigeration show put on this month by the Higbee department store in Cleveland. The fashion revue was a daily feature of the show.

### Ivey's Department Store Opens G-E Section

CHARLOTTE, N. C.—Ivey's department store will henceforth handle retail sales of General Electric home appliances in this city, according to an announcement made recently by L. W. Driscoll, Inc., Charlotte distributor.

The General Electric department in the store will be headed by W. L. Hopkins, formerly sales manager for Driscoll.

At the opening of the department a dedication program was held, the speakers including Mayor Arthur Wearn, Clarence O. Kuester, executive secretary of the local chamber of commerce, Ralph Cameron, depart-

ment store manager of the specialty appliance sales department of General Electric Co., T. B. Allen, the specialty appliance department's southern district manager, and L. W. Driscoll, head of the distributorship.

In its opening promotional campaign Ivey's used the Stensgaard traveling window display in a show window. Show cards were placed in all display windows, inviting the public to visit the G-E kitchen. Spot displays were arranged throughout the store, while directional arrows were employed to direct store traffic to the G-E kitchen department. Employees wore a ribbon, on which were printed the words, "Visit General Electric Kitchen on Third Floor." Newspapers carried editorial stories as well as advertising copy announcing the opening.

### Burned Kelvinator Used In Window Display

ALEXANDRIA, Va.—One of the Kelvinator domestic refrigerators that came out of the fire that destroyed the Cameron apartments here and demonstrated its ability to operate efficiently despite the heat to which it had been subjected is being used in a window display of the Virginia Public Service Co.

Two sales have been directly traced to the fact that the display had so fascinated the purchasers that they desired to know more about the type of refrigerator that had gone through the fire, according to W. T. Coe, commercial manager of the northern division of Virginia Public Service Co.

The character and integrity of a product is best expressed by the quality of service it delivers. Universal Cooler products have a reputation for dependable performance in every field where electric refrigeration is employed.



**UNIVERSAL COOLER CORPORATION**  
DETROIT, MICHIGAN BRANTFORD, ONTARIO

MANUFACTURERS OF A COMPLETE LINE OF HOUSEHOLD AND COMMERCIAL REFRIGERATION EQUIPMENT



## ENGINEERING

### York Develops 6 New Air Conditioners Of Various Types and Capacities

(Concluded from Page 1, Column 2)  
trim. It filters, recirculates, cools, and dehumidifies the air.

Capacitor-type fan motors, the same as those in model F-125-D4, are employed, and are variable in speed. Cooling capacity is about three-quarters of a ton of refrigeration.

New model C-60 is the small ceiling-type air conditioner with about three-quarter ton capacity. The casing of this model entirely encloses the fan and motor assembly, and is fitted with bronze filters. The exterior finish is light brown baked enamel.

This is a heating and cooling unit. It is adapted for ceiling or wall mounting, or for concealed installation where space does not permit the location of equipment within the conditioned area. The low-speed pro-

pellor-type aluminum fan is fitted with a capacitor-type motor.

The two new horizontal air conditioners have been designed for restaurants, specialty shops, smaller department stores, and general stores of all types. It may also be applied in multiple where conditions do not permit the use of central systems.

Mechanical parts of these models are enclosed in a rectangular casing finished in light brown to blend with most wall and ceiling decorations, permitting application directly in the conditioned space.

Where the distance of air travel and height of ceiling permit, they may be used without ducts. If direct application is not desired, the conditioners may be located in any space, such as the basement, floor above, or in an adjacent room, according to York engineers.

Each of these conditioner units constitutes a complete air-conditioning system, for both summer and winter service. It will cool and dehumidify the air in summer, and heat and humidify the air in winter, and will recirculate and filter the air throughout the entire year. Filtered outside air may be introduced through the conditioner during the summer or winter in any desired quantity.

When neither heating nor cooling is required, during the spring and fall periods, the conditioner may be used for the circulation of outside filtered air.

The interior casing is of 16-gauge galvanized steel, and completely encloses the air-conditioning chamber, so that all of the air circulated by the fan comes in contact with the conditioning surface.

The exterior casing, of 20-gauge steel, is secured to an angle iron superstructure. This exterior casing conceals the heavy, durable working parts from view and provides an insulating air compartment around the air-conditioning chamber.

Accessible doors provide for removal of filter and inspection of motor. All interior metal is protected by aluminum coating. The external finish is in light brown baked enamel, processed to produce a modern surface finish.

Model C-600 has a cooling capacity of about seven tons, and C-1000 about 10 tons, depending on suction pressure of the coils and other operating conditions.

The removable, washable bronze metal filter is secured in a durable galvanized steel frame. All models have an extra heavy shaft, rugged fan wheel, and scrolls with bronze oil bearings for semi-annual oilings.

### Binns and Wilson Are Promoted by Revere

NEW YORK CITY—C. D. Dallas, president of Revere Copper & Brass, Inc., announces the appointments of R. H. Binns, Jr., and S. H. Wilson, as assistant general sales managers, with headquarters in the general sales department, New York Central building here.

Mr. Binns will devote his time principally to merchandise sales which, in general, includes those products sold through distributors for resale. Mr. Wilson will specialize on sales to industrial consumers.

At present, Mr. Binns is manager of the Pacific coast sales district of Revere and has his office in San Francisco. Before going to the coast two years ago he was assistant sales manager of the Rome Division, Rome, N. Y., in charge of merchandise sales.

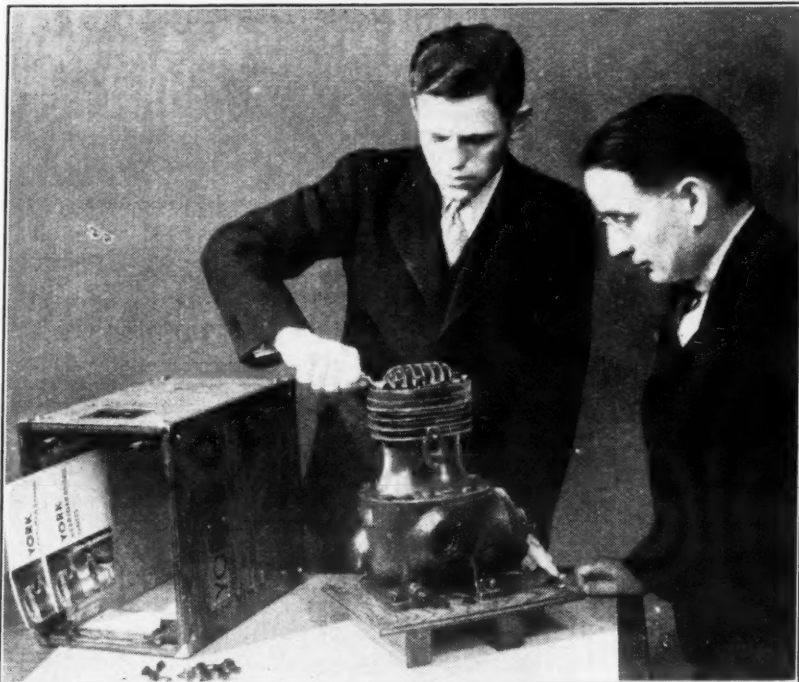
Mr. Wilson comes to New York from the Michigan division of Revere in Detroit, where he was assistant sales manager. He has been with the Michigan division and with the Michigan Copper & Brass Co., as it was known before the Revere consolidation in 1928, for 12 years. Previously, he was associated with McCord Radiator & Mfg. Co.

### Room Cooler Solves Wrapping Problem

COLUMBUS, Ga.—Installation of a Frigidaire room cooler in the wrapping room of the famous Tom Huston peanut factory here has solved the problem of summer production.

This wrapping room was the "bottle neck" in the production line at the peanut factory. Hot weather and high humidity during the summer months often forced suspension of factory operations because the peanuts could not be wrapped properly under such conditions. Installation of the room cooler banished the summer problem.

### An Aid to York Salesmen



To show features of their Freon condensing units, the commercial sales division of York Ice Machinery Corp. has developed this laminated oak demonstration cabinet. Top of the cabinet and handles serve as base for the compressor. James Ogg of the commercial sales division is showing Harry De Lashmuth, sales promotion department, how one double-end wrench can be used to disassemble the compressor completely.

### Ferro Porcelain Enamel Course Opens May 17

CLEVELAND—The training course for porcelain enamelers, sponsored by Ferro Enamel Corp. at its factory offices at 4150 E. 56th St., here, will be held May 17, 18, and 19, instead of May 3, 4, and 5.

Instruction will be in charge of J. E. Hansen, author of the text book, "Advanced Technique of Porcelain Enameling."

### 2 Enduro Distributors Are Appointed

YOUNGSTOWN, Ohio—Gate City Iron Works Co., Omaha, and Earle M. Jorgensen Co., Los Angeles, are newly appointed distributors of Enduro stainless steel.

### Born Addresses Service Meeting in Albany

ALBANY, N. Y.—Elmer F. Born, service manager for the Gibson Electric Refrigerator Corp., was the principal speaker at a service meeting held here for Gibson dealers by the Capital City Distributing Corp.

Approximately 50 dealers were in attendance at the meeting, according to Max E. Hegleman, sales manager of the Capital City Distributing Corp.

### Root, Neal & Co. to Sell Kerotest Valves

BUFFALO—Root, Neal & Co., at 64 Peabody St., here has been appointed distributor for Kerotest refrigeration valves, manifolds, accessories, and fittings in this district.

### Universal Publishes Installation Book

DETROIT—Universal Cooler Corp. has just issued a new loose-leaf *Installation Manual*, covering practically all phases of commercial installation practices, with particular attention to refrigeration for air conditioning. The manual is available to national account organizations and to Universal service representatives at a cost of \$1 per copy.

The manual first gives a general discussion of refrigeration, followed by an explanation of the cycle.

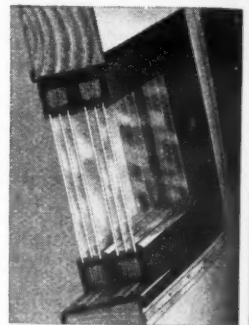
Under "System Layouts," it shows diagrams of a typical market, florist display case, grocery refrigerator, circulating water system, dairy equipment, beer coolers, central station air conditioning, and several variations of cooling and heating installations.

In the next few chapters the manual treats the various component parts of a commercial installation with diagrams and explanations of the operation of cooling coils, refrigerant lines, insulation, condenser water systems, thermostatic expansion valves, refrigerants, oil, valves, and controls.

The current literature of manufacturers of the various parts is included in several instances, and fits into the loose-leaf 8½x11-in. size of the manual. Concluding chapters of the book show electrical wiring diagrams and tables, and instructions for testing and operating a finished commercial refrigeration installation.

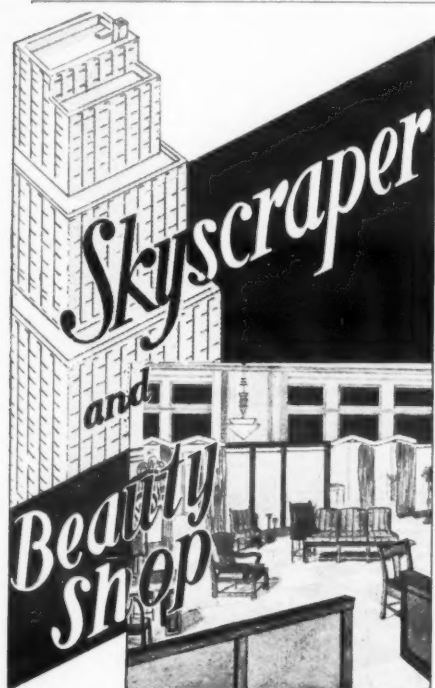
### ACE HARD RUBBER BEARING SLIDING DOORS

Ace hard rubber doors are supplied with roller bearings at slight extra cost



Warping and swelling of door is prevented by the use of reinforcing, laminated, plywood core, sealed entirely within Ace hard rubber door.

AMERICAN HARD RUBBER COMPANY  
111 MERCER STREET, NEW YORK, N. Y.  
Akron, Ohio — 111 West Washington St., Chicago, Ill.



both utilize the same principle of  
**AIR**  
**CONDITIONING**

Regardless of capacity, real conditioning with advantages of moderate initial cost and economy in operating expense are being secured with



The largest makers of air conditioning apparatus are now licensed to manufacture UNITS utilizing the exclusive AUDITORIUM improvements that are assuring maximum economy as well as efficiency in the most prominent air conditioned buildings through the Nation.

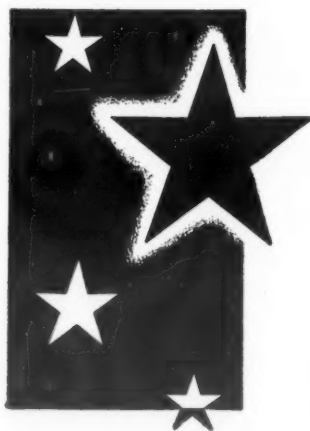
Whether the job is for a skyscraper or shop; railway train or residence — you insure satisfaction from every standpoint by specifying UNITS bearing the license plate of AUDITORIUM CONDITIONING CORPORATION.

Names of licensed manufacturers will be sent upon request.

**AUDITORIUM**  
**CONDITIONING**  
**CORPORATION**

New York Office

17 East 42nd St. New York



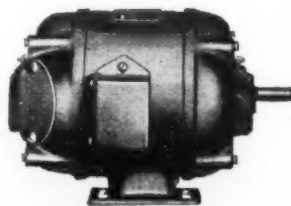
### The STAR PERFORMER

Since 1903 Century Repulsion Start Induction Brush-Lifting Type Single Phase Motors have continuously given star performance in the operation of motor-driven domestic appliances:

1. By making their development possible
2. By popularizing their use
3. By increasing their market, and
4. By thoroughly satisfying consumers, dealers, manufacturers.

The starting current is low compared to other types of single-phase motors... Hundreds of thousands of them — 1/8 to 40 horsepower — have been operating satisfactorily in automatically-controlled refrigerators of the household and commercial sizes, air compressors, pumps, oil burners, and similar apparatus where motors must "keep a-running" because they are rarely inspected. Consult Century Engineers.

CENTURY ELECTRIC COMPANY  
1806 Pine Street St. Louis, Mo.  
Offices and Stock Points in Principal Cities



Century 3/4 Horse Power, 1800 RPM  
Single Phase Motor

**Century**  
**MOTORS**



## Francis Says Salesmen's Loyalty Can Be Inspired by Contact with Superiors

NEW YORK CITY—Loyalty in a sales force "can be inspired by bringing each man frequently into contact with his immediate superior and thereby destroying his isolation; by definitely placing responsibility and providing adequate incentive to induce a salesman to shoulder his responsibilities, as well as by providing at all times through the higher executives an example of assiduous attention to the interests of the company." This is the opinion set forth by Clarence Francis, executive vice president of General Foods Corp., in the March issue of *Executive Service Bulletin*.

Loyalty is just as important in members of a sales staff as it is in soldiers of an army, Mr. Francis declares. But in a sales organization, he points out, the individual ordinarily operates alone, without immediate supervision.

### Salesman Is Lone Fighter

"During most of his day he is a lone fighter for business for his company," says Mr. Francis. "Days or weeks may pass before a salesman talks personally with his boss."

"It is very important, therefore, that the executive of a sales organization take the proper steps to build loyalty in his salesmen."

"Under ordinary circumstances, a salesman will be loyal if he is happy and making progress in his work, and if he is proud of the company he represents. This depends greatly upon the executives at the top. They should see to it that the company's policies are right and that the management consists of men of sound character."

### Should Understand Viewpoint

Mr. Francis takes the view that the executive who would win the loyalty of his men should understand their viewpoint. He should be something of a psychologist, a judge of human nature. He should realize that any individual works best when trust and confidence are reposed in him; that nothing brings out a man's hidden abilities so much as placing responsibility upon him.

"It stimulates him to exert himself to the utmost, to give vent to his initiative, and to rely upon his own judgment," the General Foods executives declare.

"In other words, the giving of responsibility frequently means the difference between an active, alive, alert salesman and a man who works in a rut."

### Reorganize Sales Set-Up

Some months ago, according to Mr. Francis, General Foods announced a plan for the reorganization of its sales set-up. The essence of the plan is the localization of sales responsibility.

In its three divisional headquarters with their 26 district sales offices, authority is centered in the divisional and district sales managers. Under the district sales managers, and directly answerable to them, General Foods heretofore had the jobbing men, with the responsibility of selling to direct outlets, and the retail salesmen whose duties were to help retailers move the merchandise they had purchased from the jobbing men's customers.

Because jobbing men and retail salesmen functioned separately, states Mr. Francis, there was not always that cooperation and coordination necessary to maintain and increase the volume at the proper rate. From the men's viewpoint, responsibility was limited and promotions to positions of importance were rather vaguely charted, with the result that incentives to extra effort were not clear in the men's minds.

### Create New Positions

"Under the new set-up, we have provided more precisely divided authority and responsibility, and we have opened up a group of new positions to which successful salesmen can aspire," declares Mr. Francis.

"To do this, we have divided each of our 26 districts into a number of sub-districts. These sub-districts, in area, coincide fairly well with the area of the various wholesale markets throughout the United States."

"For example: In the main districts centering in Cincinnati, there are several markets—Louisville, Indianapolis, Dayton, and so forth. In each of these sub-districts or markets, we

have placed a salesman whom we call a district representative.

"Working with him and under him is a small group of other salesmen. The district representative and the small group of salesmen cooperating with him are responsible for the General Foods business in the sub-district."

"Each man in this group has a personal and financial interest in the work of the entire group. Responsibility is definitely placed and accepted. Although the district representative and his group work under one of our 26 district managers, they have ample opportunity for the exercise of initiative in the development of the business for which they are responsible."

### Stimulate Aggressiveness

"By re-dividing responsibility and broadening duties we have taken steps to stimulate aggressiveness and self-confidence in our salesmen. They have an increased respect and desire to work for an organization which, in this way, has opened the door of opportunity for them."

General Foods has found that the morale of the men has been raised, due to the formation of a more closely knit organization, the creation of competitive spirit among the units and, last but not least, because of the greater opportunity for advancement created by the plan that is now in operation.

"A business organization today is efficient to the extent that the shackles have been removed from its men and they are allowed to develop and exercise judgment and initiative," avers Mr. Francis. "It has been said that a business organization will grow as fast as its men grow."

"It is inevitable, of course, that an individual may make mistakes when he is granted a certain leeway. No executive is acting wisely to penalize such mistakes harshly when they have been made as a result of the sincere exercise of initiative."

"The important thing is to show that mistakes will be forgiven if the men who make them will profit by them and not repeat them. In this way the individual will grow stronger in his business dealings."

### Encourage Responsibility

Mr. Francis points out that while most salesmen have as their major incentive in business the desire for financial advancement, the executive who takes a real interest in the welfare of his men does well to encourage them also to seek increased responsibility as well as monetary return. For, if the man's mind is occupied with the mastering of responsibility, he will grow in value, and a larger salary should be a by-product of his development.

It is important for a salesman to have pride in the company he represents, Mr. Francis believes. This is directly linked with the policies of the company. If these policies are sound, and if they are in keeping with the highest business ethics, the salesman will develop the feeling that he is working for one of the best companies in his field. His loyalty will reflect his regard for the organization.

### Danger of Self-Satisfaction

When the salesman and management thoroughly understand each other and practice team play, they are a combination hard to beat, the one danger being that a smooth-running team of this kind sometimes is in danger of getting self-satisfied, Mr. Francis declares.

"The salesman may feel everything is fine and he is doing all that can be done. A management also may get such a feeling. This danger is chiefly a challenge to management to keep always on its toes. No matter how good it is, an organization should always fight to improve itself. A spirit of this kind in a management is quickly reflected in salesmen."

## Chicago Newspaper Prints Air-Conditioning Section

CHICAGO—Being started as a regular weekly feature of the *Chicago American*, evening newspaper here, is a section devoted to non-technical articles and news items on air conditioning. P. D. Horgan is air-conditioning editor of this Hearst publication.

## Branch Manager



LEO J. FREITAS

Manager of recently established Fedders branch at Dallas, Tex.

## Brendel & Tipton to Head Gibson Division

GREENVILLE, Mich.—With production nearing the season peak Charles J. Gibson, president of Gibson Electric Refrigerator Corp., last week announced the appointment of Fred Brendel as superintendent of the Gibson electric unit division and C. M. Tipton as assistant superintendent.

Both Mr. Brendel and Mr. Tipton have been with Gibson for some time, the former as assistant superintendent and the latter as an engineer.

## Porcelain Institute To Meet May 16 & 17

CHICAGO — The fourth annual meeting of the Porcelain Enamel Institute will be held at the Hotel Statler in Cleveland, May 16 and 17.

A program with such headliners of the industry as Bennett Chapple, vice president of the American Rolling Mill Co., William Hogenson, president of the Chicago Vitreous Enamel Products Co., E. L. Lasier, vice president and general managers of the Titanium Alloy Mfg. Co.; R. A. Weaver, president of the Ferro Enamel Corp., and others is in the process of development. Respectively, their subjects will be: "Architectural Uses of Porcelain Enamel," "What the Public Does and Does Not Know About Porcelain Enamel," "Development of a Technical Research and Educational Bureau," and "Cooperative Advertising."

Another topic, of special interest to jobbing shops of the industry and others doing contract enameling, will be "What the Jobber Can Do to Increase His Business." This subject will be presented by one or two heads of prominent jobbing plants.

## Porcelain Enamel Parade

Following the annual meeting of the Porcelain Enamel Institute in Cleveland, May 16 and 17, the "second edition" of the Porcelain Enamel Parade will open in conjunction with the 1934 Century of Progress in Chicago, Saturday, May 26.

The Institute has announced preliminary plans for introducing a number of physical tests and demonstrations designed to show the superiority of porcelain enamel over other finishes. Some of these, as planned, will be: impact test, using the well-known cannon ball demonstration, al-

kali test, scratch test, discoloration test, acid-resisting test and others.

The introduction of these demonstrations will mean enlarging that part of the Parade devoted to the educational exhibit and will be in addition to the spraying and burning demonstrations, which feature a spray booth and porcelain enamel furnace.

Work on installing exhibits in the Parade will start May 1, the Institute has announced, and all exhibits must be installed by May 20.

## Terry Heads Sparton Inspection Staff

JACKSON, Mich.—Appointment of T. B. Terry, formerly with Gibson and Frigidaire, as engineer in charge of the inspection department of the Sparks-Withington refrigeration division, has been announced by Fred Steinhilber, personnel manager of the Sparks-Withington Co., manufacturer of Sparton refrigerators.

Mr. Terry was formerly production manager of the electric unit division of the Gibson Electric Refrigerator Corp. Previous to that he was with Frigidaire Corp. for six years in the capacities of material engineer, assistant chief inspector in charge of final test and final inspection at both the compressor plant and cabinet plant, production manager of the absorption division, and Faraday development engineer.

## Ferro Adds Offices to Cleveland Plant

CLEVELAND—New offices are being added to the plant of the Ferro Enamel Corp. here to accommodate the staff of the Allied Engineering Co., moving from Columbus to Cleveland. The Allied company becomes a part of Ferro, handling pottery frit kiln and supplies sales.



# Read it and Reap BIGGER PROFITS

Hundreds of refrigeration dealers are already reaping profits traceable to the day they sent for this **BRUNNER CATALOGUE**. Idle curiosity turned to active interest before they finished the preface page. For here without "ifs" — "ands" or "buts" is a line of refrigeration equipment that equals any in quality and beats them all in value.

Six dependable compressors, seventeen efficient highsides — air and water cooled units—gas engine or electric—in a range from 1/6 H.P. to 3 H.P. Send your coupon today. Study the specifications of these rugged **BRUNNER** units. Compare their construction. Visualize their sales possibilities. We believe you will agree with us when we say — This is a **BRUNNER** year!

**BRUNNER MANUFACTURING COMPANY**  
UTICA, N. Y., U. S. A.

# BRUNNER

*A Name Built by 28 Years of Service*

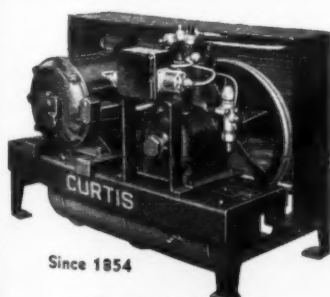
Brunner Manufacturing Company  
Utica, N. Y.

Send me the Brunner Catalogue.

Name .....

Address .....

City .....



Since 1854

**CURTIS MANUFACTURING COMPANY**  
1912 Klenlen Avenue, St. Louis, U.S.A.  
518 H Hudson Terminal, New York City.

## CURTIS REFRIGERATION

Quiet, Compact, Slow Speed Condensing Units. Complete range of sizes for commercial and domestic applications. 1/6 h.p. to 5 h.p. Distributor Franchises still available.



Write to





## Easy-Way Markets Ice Cream Freezer

(Concluded from Page 1, Column 1)  
locks, thus preventing any injury to the motor. If further hardening is desired, the dessert may be left in the freezer or emptied into the trays of the cube compartment.

The three-purpose agitator, beater, and mixer (see illustration above) is easily removed for cleaning purposes. The Easy-Way is finished in highly-polished chrome nickel.

The attachment cord is flat-shaped, thin and flexible in its design, so that coupled with the flexibility of the refrigerator door gasket, it enables the door to be closed on it without damage to either the door or the cord.

According to officials of the company, the Easy-Way will be promoted to the electric refrigeration industry as a basic trade promotion idea and as an item which may be sold by canvassing salesmen.

All types of frozen desserts can be produced in the Easy-Way, and with each of the freezers is packed an instruction and recipe book, which contains recipes of frozen desserts of all varieties.

The Easy-Way freezer was introduced at the Second Annual Electrical Progress Exposition held in Cincinnati early this month. Laura Judd Bryant, famed home service director of the Union Gas & Electric Co. of Cincinnati, assisted in the design of the Easy-Way.

## G-E Advertising Formula Explained by Lang

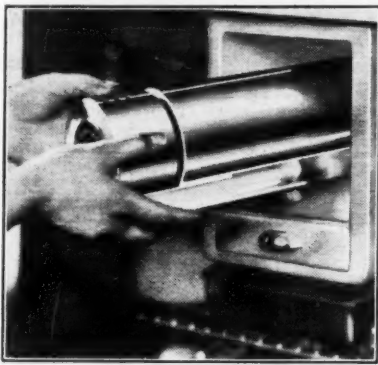
MILWAUKEE — The component parts of the General Electric advertising formula "NIRCAESDSE-LASE" were explained before the March meeting of the Milwaukee Association of Industrial Advertisers by Chester H. Lang, manager, publicity department, General Electric Co., Schenectady, N. Y.

The formula represents a sound selling plan which, when properly handled and used in the proper sequence, will yield the basic objective of advertising—increased at a profit, Mr. Lang declared.

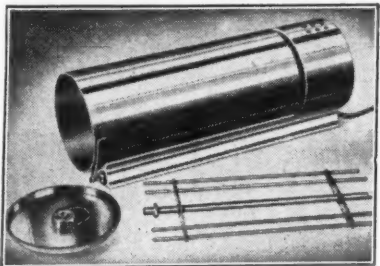
Each of the activities, which are alphabetized to make up the formula, are used to answer four questions in the mind of the prospect. The four questions are Who, What, Why, and Where.

The elements that tell Who and What include Sunday night and other radio programs, institutional magazine advertising, calendars and diaries, the news bureau, exhibits, lecture service, catalogs, handbooks,

## The 'Easy-Way'



The freezer slips into the freezing compartment on a flat base. The refrigerator door closes easily on the thin, flat cord.



Component parts, including container, agitator, cover, and cord. The cover has a spring latch.

descriptive sheets, and agricultural advertising and broadcasting.

The remaining elements in the formula tell the prospective buyer Why and Where, Mr. Lang declared.

"S" in this group stands for sales movies. "E" symbolizes electric signs. "S" again stands for sales promotion service. "R" represents research—market research.

## Howell Named Manager Of Revere District

NEW YORK CITY—A. J. Howell has been appointed manager of the Pacific Coast district of Revere Copper & Brass, Inc.

Mr. Howell has been with Revere on the Pacific Coast since the opening of an office there in 1932, and for many years previously had represented another division of Revere on the coast. He will make his office in the Bass building, San Francisco.

## Borden Gives Hints On Freezing Creams

NEW YORK CITY—Hints on the selection of proper ingredients for the ice cream mix and suggestions as to how to get the best results from freezing chambers and household electric refrigerators are contained in a bulletin just published by the food service department of the Borden Co.

The ingredients used in ice cream making must be chosen with a view to (1) flavor, (2) freezing characteristics, and (3) texture of the final product, the bulletin declares.

When an ice cream is frozen, says the bulletin, it consists of numerous tiny ice crystals suspended in a syrup of sugar, minerals, and any other constituents present in the water.

These substances present in the unfrozen liquid are so concentrated that the freezing point is too low for further crystallizing at the temperature provided. Ice crystals are mixed with minute fat globules, colloidal particles of milk or milk and egg protein, and the tiny air bubbles incorporated in the mixture by beating.

The chief ice cream ingredients and their functions are set forth in the bulletin as follows:

Milk gives the mixture body. The milk solids prevent ice crystallization and hold air.

Cream gives smoothness. Butterfat in cream interferes very definitely with formation of ice crystals.

Eggs perform the same functions as cream. Viscosity of the egg holds air and prevents roughness of texture. Besides adding sweetness, sugar in syrup form aids viscosity of mixture, thus holding air and preventing large crystals from forming. The one disadvantage of sugar in a frozen dessert is that it lowers the freezing point.

Gelatin, flour, and cornstarch are stabilizers. They form gels and hold ice crystals apart.

One part sugar to four parts liquid is a proportion which is sufficiently sweet without interfering with the freezing ability of the ice cream mixture.

Cream should be whipped to "custard consistency" before mixing in with the rest of the mixture.

The following recommendations are made with reference to getting the best freezing results:

1. Ingredients should be thoroughly chilled before they are placed in the freezing tray.

2. The cream should be whipped only until it will barely hold its shape, not until it is too stiff. Cream which has been too stiffly whipped will be "grainy" and "buttery" in freezing.

3. The fastest freezing tray should be used. The faster the freezing, the smoother the ice cream. Temperature of the chilling unit should not be higher than 24° F.

The freezing tray should not be filled too full, as stirring is necessary during the freezing period.

Defrosting of the refrigerator is necessary to get best freezing results. A thick coat of frost prevents quick freezing.

Large quantities of unchilled food should not be placed in the refrigerator during the freezing period.

When the mixture has been frozen to a stiff mush, it should be removed and beaten, in order to break up any large ice crystals which may be forming.

## Westinghouse Saves Life In Explosion

CUMBERLAND, Md.—A Westinghouse domestic refrigerator was credited with saving a human life when a terrific explosion recently wrecked the home of Eugene Nixon, 421 Louisiana Ave., causing the death of two persons. It is believed the explosion was caused by turning cold water into a steam boiler that had become dry.

The explosion blew the brick walls of the house outward, causing the second story to fall to the foundation, dropping everything on the first floor into the basement.

Mrs. Nixon was in the kitchen at the time of the explosion. Before she knew what had happened she found herself lying on the cellar floor near the wall with the Westinghouse refrigerator leaning against the wall above her in such a manner as to shield her from injury by falling debris.

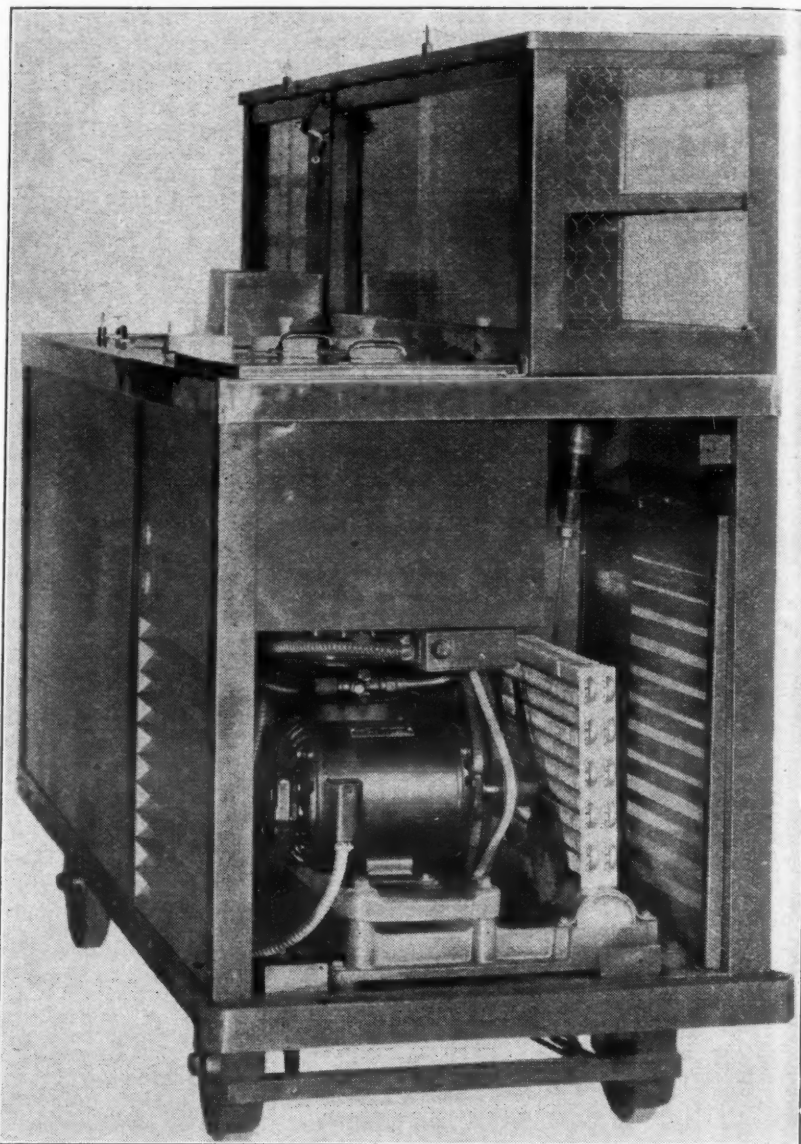
When service men from the Sterling Electric Co., Westinghouse dealer, arrived the next day, it was found that the entire stairway was resting on the top of the cabinet.

## Kelvinator to Equip New Coast Guard Boats

BAY CITY, Mich.—George F. Dent Radio Co. will equip five new patrol vessels of the U. S. Coast Guard patrol this year with Kelvinator electric refrigeration.

Mr. Dent, youngest of all Kelvinator distributors, in 1932 equipped the U. S. Coast Guard patrol boat Escanaba.

## Refrigerated Food on Wheels



Brunner commercial refrigerating machines have been selected for use in the new Wright portable commissary, made by the Wright Co., Atlanta, Ga., manufacturer of restaurant equipment.

## 3,000 Attend Exhibit at Cincinnati Daily

CINCINNATI—A daily attendance of more than 3,000 people was recorded at the Electrical Progress Exposition held in the Union Central Annex here March 31 to April 5 under the auspices of the Cincinnati Electric Club and the Times-Star.

Twenty-two distributors of electrical appliances exhibited at the show. Doors of the show were open from 10 a. m. to 10 p. m.

Eleven electric appliances, with a combined retail value in excess of \$1,000, were contributed by exhibitors as awards for winners in a portrait drawing contest sponsored by the Times-Star.

Another daily feature designed to draw crowds was the auctioning of designated articles. Each exhibitor was permitted to auction one piece of merchandise of his own selection for a single day. Special cards and ballot boxes were provided for the bidding, which was done in writing at the respective booths, in order to provide prospect lists for the exhibitors.

The exposition was heralded in a special 16-page section of the Times-Star, in the issue of the day preceding the opening of the show.

## Tafel Makes 166 Sales From Floor at Show

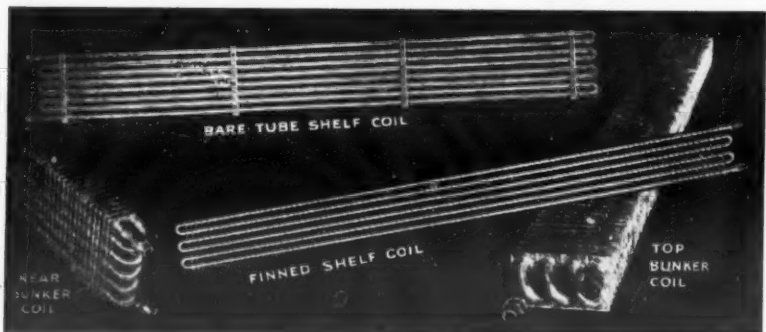
CINCINNATI—Salesmen for the Tafel Electric Co., Westinghouse distributor, and seven of its dealers, sold 166 household electric refrigerators from the floor of the Electrical Progress Exposition, which ran for five days here early this month.

Of the refrigerators sold, two-thirds of them were 7½-cu. ft. models or larger and approximately 50 per cent were all- porcelain jobs.

## Chicago Appliance Show To Open July 30

CHICAGO—House Furnishings and Electrical Appliance Market, sponsored annually by the Merchandise Mart here, will be held this year July 30 through Aug. 11 on the fourteenth floor of the building.

## Just out! New Catalog on KRAMER "Shelf" Evaporators



Your file is not complete without copies of KRAMER REFRIGERATION PRODUCTS CATALOGS  
Up-to-date information and prices

## KRAMER REFRIGERATION PRODUCTS

Turbofin Unit Coolers  
Commercial Evaporators  
Domestic Evaporators  
Condensers

Bottled Beer Cooling Coils  
Ice Cube Makers  
Shelf Evaporators  
KX Case Evaporators

Junior KX Case Evaporators

## TRENTON AUTO RADIATOR WORKS

Main Offices and Factory, TRENTON, NEW JERSEY  
NEW YORK, 241 West 68th Street  
PITTSBURGH, 5145 Liberty Avenue

## ANSUL SULPHUR DIOXIDE For dependable refrigeration

Complete refrigeration satisfaction depends a lot upon the quality of the sulphur dioxide used. Specify Ansul, the sulphur dioxide in individually analyzed cylinders and be certain of dependable refrigeration always.

ANSUL METHYL CHLORIDE Available in any quantity, spot or contract shipments. Every container is laboratory tested to insure low moisture and acid content.

ANSUL CHEMICAL COMPANY  
MARINETTE WISCONSIN

POSITIVE TEMPERATURE CONTROL	WIDE-RANGE OF TEMPERATURES	ACCURATE AT ANY TEMPERATURE
INSTANTANEOUS INDIRECT COOLING		CONTROL POSITIVE-AUTOMATIC
COMPACT INSTALL IN ANY FIXTURE		CAPACITY FOR ALL DEMANDS
ECONOMICAL RESERVE COLD-HOLD		AVAILABLE 1 TO 4 DRAFT ARMS
FLEXIBLE USE ANY REFRIGERANT		APPLICATION COOL ANY LIQUID
EVAPORATOR STEEL OR COPPER (SEAMLESS TUBING)	SAFE DRY EXPANSION	SANITARY STEAM OR CHEMICALS

## YOU CAN SELL THIS BEER COOLER NOW!

Many prospects in your territory will make a permanent investment in a beer cooler now. With the new Radial Dual Control Beer Cooler you can get the big share of this potential business. A glance at the special Radial features listed above will show you why the "Radial" will be easier to sell and will stay sold.

Write today for details on the "Radial" franchise for your territory.

## Commercial Coil & Refrigeration Co.

455 N. Artesian Avenue

CHICAGO

Seeley 8088





## NOW READY! Order your copy today

**T**HE electric refrigeration industry has been amazingly successful throughout the depression. It is now riding on the crest of the returning wave of good times. Sales this season are better than ever before. The outlook for the industry is exceedingly bright.

In the past, refrigeration men have felt that they should have been making more money. Too often apparent profits have been offset by losses. No doubt many of these losses could have been prevented. But, of course, the industry has grown so fast that it has been difficult to see just where it was going.

Nowadays refrigeration men are making their plans more carefully. They have learned a lot from past experience. Also, we now have more facts and figures about the refrigeration business. You can now lay out a program with some assurance of success. If you know what has happened in the past, it is easier to figure out the future.

The new 1934 REFRIGERATION DIRECTORY AND

MARKET DATA BOOK contains the facts. Here is a book of 692 pages giving a clear picture of past experience in the selling of electric refrigerators. It provides a basis for predicting future trends.

The statistical section alone occupies 186 pages, the classified products section requires 196 pages, while 110 pages are taken up by specifications. There are 32 pages of trade names, 24 pages of alphabetic listings, and a geographical directory of 72 pages. In the review section there are 50 pages which tell briefly about all important developments in the industry.

Take the specifications of all models of all leading manufacturers of household refrigerators, for instance. Have you ever been stopped in your sales talk by a prospect who knew, or thought he knew, more about your competitors' products than you did? Have you ever wanted an authoritative reference work to combat exaggerated claims of rival salesmen? Here are the cold facts on all the refrigerators you are selling against, compiled in handy form.

Have you ever wondered what the potential refrigeration market was in your territory? You'll find the answer to that in the 1934 REFRIGERATION DIRECTORY AND MARKET DATA BOOK. Would you like to know how your record stacks up with those of other dealers? See the statistics in the Dealer Surveys section. Are you interested in air-conditioning progress to date? That's in the DIRECTORY, too.

Are you comparatively new in the industry, and interested in "what's gone before"—the earlier chapters in the recent history of the industry? A comprehensive and lively study of the refrigeration business as it is today—and how it got that way—will be found in the back of the book.

Order your copy today. Price \$3.00 per copy postpaid. If purchased in combination with a year's subscription to ELECTRIC REFRIGERATION NEWS, either new or renewal, the combined price is only \$5.00.

Use this coupon.

### Prospectus

A 32-page booklet of sample pages from the 1934 Refrigeration Directory and Market Data Book has been mailed to Electric Refrigeration News subscribers and is available to others on request. This prospectus will give you an idea of the useful information which is to be found in the 692 page book.

Fill out the coupon today.

### Subscription Order

Business News Publishing Co.  
5229 Cass Ave., Detroit, Mich.

Date.....1934

- ☐ Send me the 1934 REFRIGERATION DIRECTORY AND MARKET DATA BOOK. Enclosed find \$3.00.  
☐ Enter my subscription to ELECTRIC REFRIGERATION NEWS for one year. Enclosed find \$3.00.  
☐ Enclosed find \$5.00, the combination rate for both the NEWS and the DIRECTORY. ☐ Send bill.

Name .....

Attention of }  
In Care of }

Street Address .....

City and State .....

We sell the ..... refrigerator and .....  
 (Please indicate other products or principal line of business.)

The above rates apply only to United States and Possessions and Pan-American Postal Union Countries. Rate for Canada—DIRECTORY, \$6.00; NEWS, \$6.00; Combination, \$11.00. Rate for all other foreign countries—DIRECTORY, \$5.00; NEWS, \$5.00; Combination, \$9.00.

4-25-34.

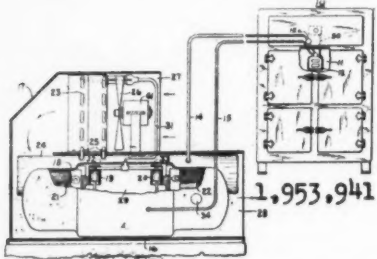


# PATENTS

Issued April 10, 1934

1,953,941. REFRIGERATOR CONTROL. William B. Anderson, Springfield, Mass., assignor to Westinghouse Electric & Mfg. Co., a corporation of Pennsylvania. Application April 16, 1932. Serial No. 605,742. 12 Claims. (Cl. 62-4.)

1. In a control system for refrigerating apparatus, the combination of a refrigerant circuit including an evaporator, a



1,953,941

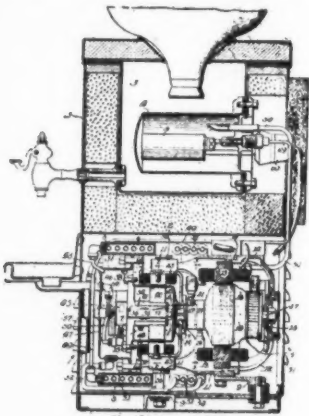
cooling compartment in heat exchange relation with said evaporator, first and second compressors connected in parallel for circulating a refrigerant through said evaporator, first and second motors for driving said compressors respectively, and means responsive to the temperature of said cooling compartment for controlling the operation of said motors to provide sequential starting and simultaneous stopping of the same, said means including means responsive to the current in the first motor for subsequently energizing the second motor.

1,953,993. ABSORPTION REFRIGERATION. Donald G. Smellie, Canton, Ohio, assignor to The Hoover Co., North Canton, Ohio, a corporation of Ohio. Application Oct. 22, 1930. Serial No. 490,497. 22 Claims. (Cl. 62-119.5.)

10. In a refrigerating system, an evaporator, an absorber, means for circulating a refrigerant gas between them, means for circulating a refrigerant liquor between the evaporator and the absorber and means for diverting a portion of the refrigerant contingent of said liquor from circulation with the liquor through said absorber.

1,954,014. MOTOR DRIVEN UNIT. Carl E. Lipman, Chicago, Ill., assignor to Lipman Patents Corp., Chicago, Ill., a corporation of Delaware. Application May 24, 1930. Serial No. 455,227. 15 Claims. (Cl. 172-36.)

1. An apparatus comprising a driving motor, a member driven therefrom, separable driving connections therebetween all



1,954,014

adapted to be combined as a single unit, a supporting member for said unit, a spider removably secured to said supporting member, the stator of said motor being carried by said spider, and a stationary shaft secured to said spider and serving as a support for the rotor of said motor.

1,954,015. EVAPORATOR. Carl E. L. Lipman, Chicago, Ill., assignor to Lipman Patents Corp., Chicago, Ill., a corporation of Delaware. Application Aug. 22, 1930. Serial No. 477,044. 11 Claims. (Cl. 62-126.)

1. An evaporator comprising a pair of shells arranged one within the other, one of said shells being corrugated and secured to the other to provide a plurality

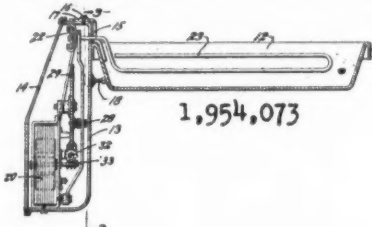
of refrigerant ducts therebetween, said ducts being in communication with each other at their ends, a second pair of shells spaced from each other and surrounding the first pair, the chamber between said latter pair of shells being in communication with said refrigerant ducts at the upper end of said chamber, means for admitting refrigerant into said ducts and an outlet connection to said chamber between said latter two shells.

1,954,056. ADSORBER SYSTEM. Ernest B. Miller, Baltimore, Md., assignor, by mesne assignments, to Chester F. Hockley, receiver for The Silica Gel Corp., Baltimore, Md., a corporation of Maryland. Application Nov. 18, 1930. Serial No. 496,555. Renewed Sept. 1, 1933. 13 Claims. (Cl. 62-118.)

1. In an adsorber system, in combination, an adsorber containing adsorbent, means to circulate a cooling fluid in indirect contact therewith to cool the adsorbent during adsorption, means to deliver a heating medium under pressure into indirect contact with said adsorbent to replace the cooling fluid and activate the adsorbent, a discharge passage for the cooling fluid and a trap in said passage to prevent the flow of the heating medium therethrough.

1,954,073. AGITATOR FOR THE FREEZING TRAYS OF MECHANICAL REFRIGERATORS. William Chester Edwards, Denver, Colo. Application Aug. 26, 1932. Serial No. 630,527. 6 Claims. (Cl. 259-113.)

1. An agitator for attachment to the freezing pan of a refrigerator comprising: a motor support; means for detachably



1,954,073

suspending said motor support from one edge of said pan; a horizontal slide carried by said motor support; a cross head adapted to reciprocate in said slide; an agitating member extending from said cross head into said pan so as to move in a plane parallel with the bottom thereof; a motor; a rotatable member driven by said motor; a projection on said rotating member; and a lever pivoted adjacent its one extremity and connected to said agitating member at its other extremity, said lever being provided with a longitudinal slot to receive the projection on said rotating member so that rotation of the latter will oscillate said lever and reciprocate said cross head.

1,954,134. REFRIGERATING APPARATUS. Lloyd M. Keighley, Dayton, Ohio, assignor to Frigidaire Corp., Dayton, Ohio, a corporation of Delaware. Application Sept. 30, 1931. Serial No. 565,946. Renewed June 26, 1933. 11 Claims. (Cl. 62-4.)

1. Refrigerating apparatus comprising in combination, an insulated compartment to be cooled, an evaporator disposed in said compartment, means for circulating refrigerant medium through the evaporator, control means for automatically controlling the circulating means to maintain said evaporator at a normal predetermined mean temperature, means for automatically modifying the operation of the control means in response to temperatures outside said compartment, and means for automatically modifying the operation of the control means in response to temperatures of the evaporator, both of said last named means including means communicating with the control means for transmitting movement of either of the last two mentioned means to said control means to change the temperature of the evaporator.

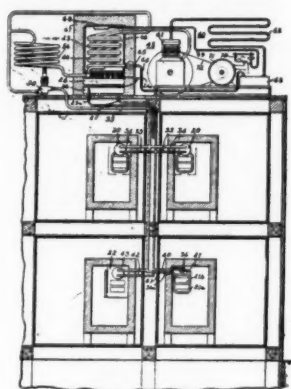
1,954,136. REFRIGERATING APPARATUS. Jesse G. King, Dayton, Ohio, assignor to Frigidaire Corp., Dayton, Ohio, a corporation of Delaware. Application Jan. 31, 1929. Serial No. 336,416. 10 Claims. (Cl. 62-116.)

1. In a refrigerator cabinet, two separate compartments, a removable cooling unit for refrigerating material extending into each compartment and having duct means depending from the cooling unit into each compartment.

1,954,148. REFRIGERATING APPARATUS. Harry F. Smith, Dayton, Ohio, assignor to Frigidaire Corp., Dayton, Ohio, a corporation of Delaware. Application

Jan. 31, 1930. Serial No. 425,008. 21 Claims. (Cl. 62-115.)

1. A refrigerating system including means for maintaining a high vapor pressure side and a low vapor pressure side,



1,954,148

said low vapor pressure side including an evaporator and a condenser, and means for transferring liquid refrigerant from said low vapor pressure side to said high vapor pressure side.

1,954,229. FREEZING AND DISPENSING DEVICE. Charles R. Sibley, Marblehead, and Arthur F. Pym, Beach Bluff, Mass., assignors to Sibley-Pym Corp., Lynn, Mass., a corporation of Massachusetts. Application March 3, 1932. Serial No. 596,506. 20 Claims. (Cl. 62-1.)

1. A device for freezing flexible balls and dispensing the frozen product, comprising a refrigerated chamber having a passage for maintaining a series of balls in a freezing zone, means including a controller at a station remote from the device for causing the balls to be dispensed from the device, and means for receiving the dispensed balls and transporting them to said station.

1,954,304. MECHANICAL REFRIGERATOR. Albert Williams Weems, Meriden, Miss. Application Jan. 11, 1932. Serial No. 586,015. 6 Claims. (Cl. 62-116.)

1. Mechanical refrigerator including a refrigerated chamber and a refrigerating system operating intermittently responsive to temperature conditions in said refrigerated chamber, including an evaporating tank in said chamber, and a compressor, and means for supplying a film of non-freezing liquid to the outer surface of the evaporator, for frost prevention, continuously for periods synchronous with the periods of operation of said compressor.

1,954,455. AIR CONDITIONING APPARATUS. Clark T. Morse and Edward L. Hogan, Detroit, Mich., assignors to American Blower Corp., Detroit, Mich., a corporation of Delaware. Application Jan. 11, 1932. Serial No. 585,986. 8 Claims. (Cl. 257-9.)

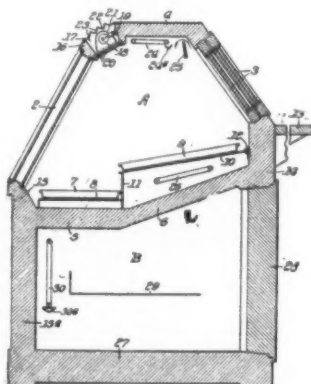
7. In combination, in an air conditioning system, a casing, a blower, a radiator in the casing, a radiator circuit, a pump for circulating a medium through said radiator and radiator circuit, a motor for operating said pump and said blower, a thermostat for controlling said motor operation, and a constant temperature means applicable to the medium in the radiator circuit remote from the radiator, and means to control the medium circulation by the temperature of the air in the system, and means to move the air simultaneously.

1,954,456. AIR CONDITIONING APPARATUS. Clark T. Morse and Edward L. Hogan, Detroit, Mich., assignors to American Blower Corp., Detroit, Mich., a corporation of Delaware. Application April 1, 1932. Serial No. 602,412. 17 Claims. (Cl. 257-137.)

4. In an air conditioning apparatus, a casing having a vertical partition separating an air inlet compartment from an air outlet compartment, a perforated, transversely-arranged partition in the air inlet compartment having a plurality of depending, closed-end filter bags mounted therein, means of moving the air there-through from one side of the partition to the other, radiator means on the other side of the partition from the filter bags arranged transversely of the casing, and means for conveying a temperature changing medium through said radiator.

1,954,475. REFRIGERATING CABINET. John Edward Gloekler, Pittsburgh, Pa. Application July 12, 1932. Serial No. 622,086. 10 Claims. (Cl. 62-89.5.)

1. In a refrigerating cabinet having a sloping front window, a rear opening and closing door, a top, and a floor; an illu-



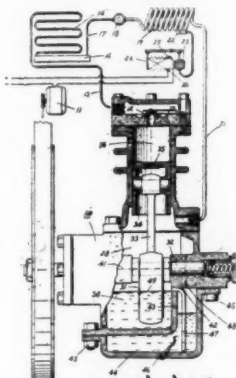
1,954,475

minating casing forming a corner connection between the front window and the top having an outer perforated cover and an inner transparent wall, a lamp therein, and a reflector directing light rays towards the interior of the cabinet.

1,954,498. REFRIGERATING APPARATUS. Nelson J. Smith, Dayton, Ohio, assignor to Frigidaire Corp., Dayton, Ohio, a corporation of Delaware. Application July 30, 1931. Serial No. 554,038. 14 Claims. (Cl. 62-115.)

1. A refrigerating system employing a refrigerant and a lubricant in which the refrigerant is miscible with the lubricant,

means for circulating the refrigerant through the system, means for starting and stopping said circulating means, a body of lubricant in said circulating



1,954,498

means, means for conducting a quantity of lubricant from the main body thereof in said circulating means, and means for maintaining said quantity of lubricant substantially out of absorbing contact with refrigerant in the refrigerating system during the off phase of each cycle of operation of the system and for causing the return of said quantity of lubricant directly to the main body thereof in the circulating means during the on phase of

each cycle of operation of the system.

1,954,518. BEVERAGE DISPENSING, REFRIGERATING, CONDITIONING, AND DISPENSING MACHINE. Raymond H. Downer, San Francisco, Calif., assignor to Frigidinks, Inc., San Francisco, Calif., a corporation of Nevada. Application Nov. 22, 1932. Serial No. 643,312. 10 Claims. (Cl. 62-141.)

9. In a beverage dispensing and conditioning machine, a container for the liquid having an upwardly extending re-entrant portion forming a cooling chamber sealed off from the liquid contents of the container, and a cooling coil in said cooling chamber in heat exchanging relation to the liquid contents of the container, in combination with agitating and scraping means within the container in cooperative relation with the walls of the cooling chamber, and means operating through the cooling chamber for operating the said agitating and scraping means.

1,954,543. REFRIGERATOR PLANT AND PROCESS. August Schwarz, Chicago, Ill. Application March 25, 1932. Serial No. 601,262. 41 Claims. (Cl. 62-115.)

1. In a refrigerator plant, in combination, a compressor, a fresh water cooled condenser, a conduit connecting said compressor to said condenser, a regulating valve in said conduit, a brine cooled liquid cooler, a second conduit connecting said condenser and said cooler in series, a bypass conduit connecting said first mentioned conduit between said compressor (Concluded on Page 19, Column 1)

## KRAMER REFRIGERATION CATALOGS

give you complete listing of Commercial Evaporators for all Refrigerators, Unit Coolers, Domestic Evaporators, Condensers, Shelf Coils with fins or bare.

Send for Your Copies Today

TRENTON AUTO RADIATOR WORKS

241 West 68th St. TRENTON, N. J. 5145 Liberty Ave. Pittsburgh, Pa.

## Automatic Oil Separators

PRESSURE WATER REGULATING VALVES  
HIGH SIDE FLOATS — EXPANSION VALVES  
FILTERS — STRAINERS — DRIERS  
HYDRON BELLOWS — LUBRICANTS  
SOFT SEAT PACKLESS VALVES  
AND OTHER ACCESSORIES

WRITE

RILEY ENGINEERING CORP.

919 Holden Ave.

Detroit, Mich.

STARR FREEZE  
OUTSTANDING PERFORMANCE  
attested by satisfied users  
— EVERYWHERE!

Sturdy Condensing Units from 80 to 2868 Lbs. I.M.E., and all other commercial refrigeration equipment—Wall type cases with machinery—A beautiful household line of modern, conservative styles—Write for full data.

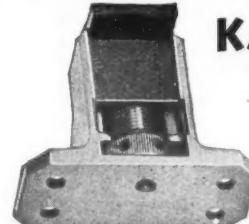
THE STARR COMPANY

Cable "Starr" Richmond, Indiana (factory) U. S. A.

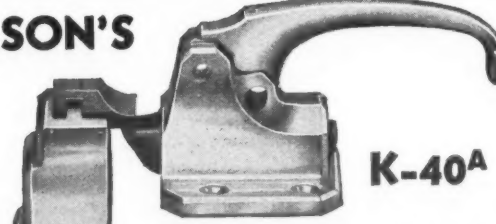
Since 1927

1344 S. Flower St., Los Angeles, Calif.

## KASON'S



Patented Micrometer Adjustable Strike  
Permits offset adjustments to the thousandth of an inch.



K-40A Refrigerator Latch

Send for Literature—Samples on Approval

KASON HARDWARE CORPORATION, 61-67 Navy St., BROOKLYN, N.Y.

The Dayton  
CARRIER Truck  
Deliver Your Refrigerators on Rubber

Type X has 53 inch Handles and 8 inch Rubber Wheels. Type Y has 70 inch Handles, 5 inch Rubber Wheels and skids.

Type X with one strap \$16.00  
Type Y with one strap \$17.50  
f.o.b. Dayton

International Engineering Inc.  
Dayton, Ohio  
15 Park Row — New York



Type X



Type Y

## A NEW COMPACT VALVE

Model 73-R Solenoid Valve, built to meet the exacting demands of the Refrigeration and Air Conditioning Industry. Drop forged body—heavy stamped cover, crackle finish. Easily installed, small and neat in appearance. Impact type plunger. For use with Freon, Methyl Chloride and similar installations. Can also be supplied for the control of water. Working pressure 150 lbs. 5/32" port. Write for details.



AUTOMATIC PRODUCTS CO.  
121 N. Broadway Milwaukee, Wis.

# Artic

REG. U. S. PAT. OFF.

DU PONT METHYL CHLORIDE, ESPECIALLY MANUFACTURED FOR REFRIGERATION USE

Meets All Demands of Modern Household and Commercial Units

- Small volume displacement per unit of refrigeration
- Very stable under operating conditions
- Non-corrosive to ordinary equipment, even if moisture gets into the system.
- Easily handled and serviced

Strict production control and analytical tests on ARTIC before shipping assure you of receiving a product always low in moisture and acidity. Adequate stocks in selected distribution centers available at all times.

Write for copies of ARTIC technical book and service manual.



Ref Chemicals

THE R. & H. CHEMICALS DEPT.

E. I. DU PONT DE NEMOURS & CO., INC.

WILMINGTON, DELAWARE

District Sales Offices: Baltimore, Boston, Charlotte, Chicago, Cleveland, Kansas City, Newark, New York, Philadelphia, Pittsburgh, San Francisco



## PATENTS

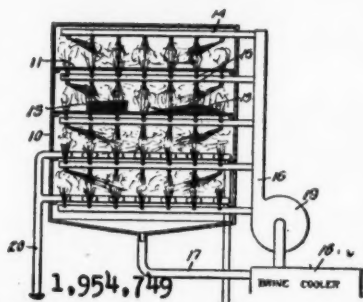
(Concluded from Page 18, Column 5)  
and said valve to said second conduit, a regulating valve in said by-pass conduit, a regulating valve in said second conduit between said first mentioned condenser and said by-pass conduit, a discharge conduit connected to said second conduit between said first mentioned condenser and said last mentioned valve, a regulating valve in said discharge conduit, a discharge conduit opening from said liquid cooler, and a regulating valve in said last mentioned discharge conduit.

1,954,695. REFRIGERANT CIRCUIT FOR REFRIGERATING SYSTEMS. Milton W. Garland, Waynesboro, Pa., assignor to Frick Co., Waynesboro, Pa., a corporation of Pennsylvania. Application Dec. 27, 1930. Serial No. 605,165. 4 Claims. (Cl. 62-126.)

1. In a refrigerating system an evaporator, an accumulator positioned at a greater elevation than the evaporator whereby liquid may flow by gravity to the evaporator, a suction line from the evaporator to the accumulator and a liquid supply line from the accumulator to the evaporator, a float chamber connected to the accumulator and to the supply line to the evaporator to equalize the liquid level in the said supply line and in the said chamber, a liquid supply line to the evaporator, a valve for said line, a float in said chamber in control of the said valve, substantially as set forth.

1,954,749. REFRIGERATING APPARATUS. Norman M. Small, Waynesboro, Pa., assignor to Frick Co., Waynesboro, Pa., a corporation of Pennsylvania. Application May 28, 1932. Serial No. 614,215. 3 Claims. (Cl. 62-104.)

1. A refrigerating system of the kind described comprising a refrigerating cabinet having a plurality of perforated supports for articles to be frozen, means for projecting a refrigerating fluid in finely divided spray form upwardly through said supports and against the bottoms of said articles to be frozen, downwardly upon the tops of said articles to be frozen



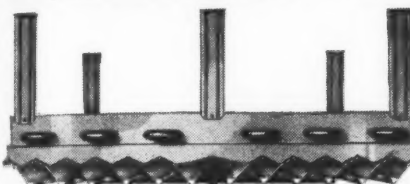
and laterally against the sides whereby the articles to be frozen are contacted throughout all of their surfaces by the refrigerating fluid to quickly freeze said articles, substantially as set forth.

## REISSUE

19,136. COOLING UNIT FOR REFRIGERATING SYSTEMS. Morris F. Booth, Chicago, Ill., assignor to Mullins Mfg. Corp., Salem, Ohio, a corporation of New York. Original No. 1,893,321, dated Jan. 3, 1933. Serial No. 378,843, July 17, 1929. Application for reissue Nov. 4, 1933. Serial No. 696,732. 18 Claims. (Cl. 62-126.)

13. A sheet metal evaporator of the flooded type having a header chamber and laterally extending walls forming a sharp freezing chamber or chambers, comprising a one-piece shell having an arcuate portion forming the greater part of said header and a laterally extending wall bent to define a portion of one or more sharp freezing chambers, a second one-piece shell cooperating with the laterally extending wall and arcuate portion of the first named shell to form one or more sharp freezing chambers, one of said shells being provided with embossed portions extending transversely from the header to form passageways around the chamber or chambers for the refrigerant and to permit welding together of the shells, and reinforcing embossed portions formed in said second shell and positioned directly adjacent the opening and extending transversely of the axis of the arcuate portion formed by said first named shell.

## PEERLESS FLASH COOLER



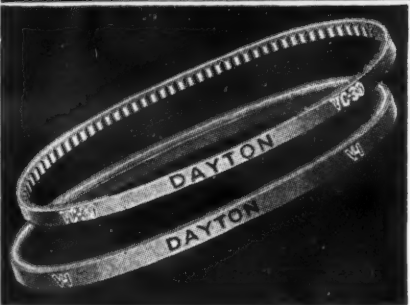
The NEW Eye Appealing Method of Cooling Walk-In Refrigerators

## STYLE &amp; RESULTS

Fin Coils and Drip Pans Engineered in an Integral Unit—Saves Installation Cost and Operating Cost

PEERLESS ICE MACHINE CO. 515 W. 35th St. Chicago

## DAYTON V-BELTS



There is a Dayton V-Belt for all makes and types of refrigerators. A stock is available near you. Send for price list and name of your nearest distributor.

THE DAYTON RUBBER MFG. CO. DAYTON, OHIO

The world's largest manufacturer of V-Belts

## COPELAND REPAIRS—REPLACEMENTS

REPAIRS	REPLACEMENT PARTS
B & B Household Controls.....\$2.50	Howell Special Capacitor Type
Penn Household Controls.....2.50	1/4 HP Refrigerator Motor.....\$11.00
Penn Commercial Controls.....4.50	Amer. Rad. Household Exp. Valve 4.50
Amer. Rad. Household Exp. Valve 2.50	Amer. Rad. Multiple Exp. Valve 7.50
Amer. Rad. Multiple Exp. Valve 3.50	Penn Commercial Controls \$8 & \$12.00
Apex Water Regulating Valve.....3.50	150 Butane (Freezeol) Per lb.....1.25
Penn Water Regulating Valve.....3.50	Methyl Chloride, Per lb......70

We also carry a complete stock of Gilmer Belts, Penn Water Regulating Valves, Glass Defrosting Trays, Lead and Fibre Gaskets Etc. WRITE FOR PRICES. Forty Eight Hour service on repairs, immediate shipment on replacements. All Repairs and Parts guaranteed to be free from defects in Workmanship, and Material for ONE YEAR.

REFRIGERATION SERVICE LABORATORIES, INC.

418-20 Bush Street

Chicago, Illinois.

THE TRADEMARK OF FOUR  
PACE SETTERS  
IN COIL EFFICIENCY

SUR-E-FEX Fin Coils  
FANE-FEX Diffusing Units  
HUM-E-FEX Non-Dehydrating Coils  
AIR-E-FEX Air-Conditioning Units

SEND FOR NEW CATALOG DESCRIBING THESE SENSATIONAL DEVELOPMENTS

REFRIGERATION APPLIANCES, INC.

H. J. KRACKOWIZER, Pres.

1342 WEST LAKE ST., CHICAGO

## QUESTIONS

## 1934 Directory

No. 1558 (Pennsylvania)—"I would like to know if your 1934 REFRIGERATION DIRECTORY contains the names and addresses of all companies in America that manufacture parts for refrigeration units. By parts I mean cooling units, condensing coils, compressors, copper tubing, float valves, expansion valves, etc."

Answer: The Directory is as complete as we know how to make it. To our best knowledge all important manufacturers of cooling units, evaporators, compressors, tubing, and valves are listed.

## Universal Cooler

No. 1559 (Service Co., Illinois)—"What can you tell me about the Universal Cooler products, especially their home size refrigerators?"

Answer: The Universal Cooler Corp. has been making electric refrigerators since about 1923. Both household and commercial units are manufactured by the company. Methyl chloride is used as refrigerant in household models. For complete specifications of Universal Cooler models see "Specifications Section" of the 1934 REFRIGERATION DIRECTORY.

## Refrigerator "Sling-about"

No. 1560 (Lumber dealer, Connecticut)—"Will you advise where we may get a 'sling-about'?"

Answer: Manufacturers of refrigerator slings and harnesses are listed on page 234 of the 1934 REFRIGERATION DIRECTORY.

## Buckeye Refrigerator

No. 1561 (Dealer, California)—"Will you kindly inform us whether or not the company manufacturing Buckeye refrigerators is still in business. Are they producing current or 1934 models?"

Answer: The Buckeye household electric refrigerator is manufactured by Domestic Industries, Inc., 282 N. Diamond St., Mansfield, Ohio. The company announced a 1934 model, bearing the name "Frigitop," in the Dec. 29, 1933, issue of ELECTRIC REFRIGERATION NEWS.

## Replacement Parts

No. 1562 (Manufacturer, Illinois)—"We are desirous of obtaining a list of reliable jobbers in the United States who handle refrigeration replacement parts—companies similar to Melchior, Armstrong, Dessau Co. of New York City. Have you such a list on hand, and, if not, could you advise us how to obtain this information?"

Answer: Suppliers of replacement parts are listed on page 302 of the 1934 REFRIGERATION DIRECTORY, and manufacturers' representatives and jobbers are found on page 297.

## Air-Conditioning Equipment

No. 1563 (Manufacturer, Michigan)—"Please advise us if you have a list of manufacturers of air-conditioning equipment and unit heaters."

Answer: The 1934 REFRIGERATION DIRECTORY contains detailed listings of manufacturers of air-conditioning equipment classified according to type of function performed. Manufacturers of unit heaters are also listed in the Directory.

## Shaved Ice Equipment

No. 1564 (Dealer, Wisconsin)—"We are having some call for equipment to produce shaved ice for home and tavern use. Will you please furnish us with the names of manufacturers of this type of equipment?"

Answer: Try Vilter Mfg. Co., 2234 S. First St., Milwaukee, Wis., for the ice shaving equipment you require.

## "Dry Ice" Refrigerator

No. 1565 (Manufacturer and jobber, Colorado)—"We are herewith enclosing a newspaper clipping of the Arthur Brisbane column. We are just wondering if you can give us any additional information on this new 'dry ice' refrigerator, and also give us the name and address of the manufacturer."

Answer: Several manufacturers are making commercial refrigerators which use solid CO<sub>2</sub> or "dry ice." This process has also been used to a considerable extent in ice cream cabinets and refrigerated trucks. For a summary of the progress made in the use of solid CO<sub>2</sub> refrigeration see the "Review Section" of the 1934 REFRIGERATION DIRECTORY.

## Electric Refrigerator Manufacturers

No. 1566 (Export and import, New York)—"We are desirous of securing a list of manufacturers of electrical refrigerators. If you have such a list available, a copy will be highly appreciated."

Answer: Manufacturers of household, commercial, and industrial re-

frigeration systems are listed in the 1934 REFRIGERATION DIRECTORY.

## Water Cooler Manufacturers

No. 1567 (Distributor, Tennessee)—"Will you please advise us the names of all the manufacturers of water coolers in this country?"

Answer: For a complete list of manufacturers of water coolers see page 329 of the 1934 REFRIGERATION DIRECTORY.

## Zerozone

No. 1568 (Pennsylvania)—"Kindly advise where we can procure Zerozone parts such as compressors, thermostats, controls, evaporators, condensers, belts, etc."

Answer: Zerozone, Inc., has been reorganized and is to continue operation (see story on page 1 of this issue). Address your inquiry to C. E. Jernberg at 939 E. 95th St., Chicago, temporary headquarters.

## Coin Meters

No. 1569 (Manufacturer, Pennsylvania)—"We would like to have the names of makers of coin meters."

Answer: Manufacturers of coin meters are listed on page 176 of the 1934 REFRIGERATION DIRECTORY.

## Ice Cream Cabinets

No. 1570 (Dealer, Oklahoma)—"Please advise us as to the names of manufacturers of ice cream cabinets other than General Electric, Kelvinator, Frigidaire, and Servel."

Answer: For a complete list of manufacturers of ice cream cabinets see page 222 of the 1934 REFRIGERATION DIRECTORY.

## Gas Refrigerators

No. 1571 (Dealer, New Mexico)—"Please advise names of firms making gas refrigerators other than Servel, and oblige."

Answer: The Electrolux gas refrigerator manufactured by Electrolux Refrigerator Sales, Inc., is the only gas-burning refrigerator on the market.

## Replacement Parts

No. 1572 (Pennsylvania)—"I would like to know whether there are any parts manufacturers for replacement parts of all or most makes of methyl chloride and sulphur dioxide machines."

Answer: Suppliers of replacement parts are listed on page 302 of the 1934 REFRIGERATION DIRECTORY.

## Lubricating Oil

No. 1573 (Manufacturer, Quebec, Canada)—"Kindly advise us where to get lubricating oil to be used in condensing units using methyl chloride and sulphur dioxide."

Answer: Try the Matheson Co., East Rutherford, N. J., and Riley Engineering Corp., 919 Holden Ave., Detroit, Mich. For a complete list of companies supplying lubricating oils see page 231 of the 1934 REFRIGERATION DIRECTORY.

## Service Manual

No. 1574 (Service company, Kansas)—"Will you kindly advise me as to whether there is a service manual published in which is compiled the service data on the various makes of household and commercial refrigeration units, and, if so, where I could obtain a copy."

Answer: The Official Refrigeration Manual published by the Gernsback Publications, Inc., 96 Park Place, New York, N. Y., is a manual for service men. The 1934 REFRIGERATION DIRECTORY contains specifications of all standard models of all major makes of household and commercial refrigerators.

## Kapok

No. 1575 (Maryland)—"Can you inform me from whom I could buy 25 lbs. or so of Kapok? I can buy it through the department stores here, but they charge too high a price. I want it for experimental purposes."

Answer: Contact Dry-Zero Corp., Merchandise Mart, Chicago, Ill., for Kapok.

## CATALOGS

## Emerson Products

Four new mailing pieces have just been brought off the press by the Emerson Electric Mfg. Co. of St. Louis. First introduces the company's new capacitor start, induction-run motor. Second gives details of Emerson's furnace blowers. Third is devoted to its three-model line of air washers, and the last advertises the Emerson household humidifier.

## Staynew Filters

Several new pieces of literature have been issued recently by the Staynew Filter Corp. of Rochester, N. Y. One, a large brochure, describes the company's Multi-V-Type air filters. Another sizable booklet gives complete details of Staynew's Protectomotor air filters, and gives a number of possible applications. A third piece is a small folder describing the Protectovent.

## CLASSIFIED

PAYMENT in advance is required for advertising in this column.

RATES: Fifty words or less, one insertion \$2.00, additional words four cents each. Three insertions \$5.00, additional words ten cents each.

## FRANCHISE OPEN

LAST CALL for dealers to handle repossessed and reconditioned refrigerators of all makes for one of the largest wholesale jobbers in the United States. 10,000 refrigerators available for the coming season, all guaranteed. Some territories still open. Wonderful opportunity for the right people. We also have several hundred new refrigerators in crates at attractive prices. Box 621.

## EQUIPMENT FOR SALE

FOR SALE. Bargain lot of 150 new Fedders domestic evaporators in original cartons. 50-5% off list price as follows: S-27, 3 tray—6 c. f.—\$9.39. S-32, 4 tray—6 1/2 c. f.—\$10.95. L-28, 2 tray—5 1/2 c. f.—\$10.90. These are complete with trays. For SO<sub>2</sub> use. Reliable Refrigerator Co., 39 East 19th St., New York, N. Y.

## INDEPENDENT SERVICE COMPANIES

You can profitably use this column to tell Refrigeration Manufacturers who you are and where you are. Write for special rates for service companies.

## Authoritative . . .

YEARS of technical research lie behind the simple, concise and authoritative presentation of refrigeration knowledge set forth in U. E. I. training. Leading manufacturers cooperate with our staff engineers . . . It is not a one man job.

UTILITIES ENGINEERING INSTITUTE  
Wells at Kinzie Street, Chicago

Complete and practical refrigeration training by extension methods

Eighth Year

## Extra Dry ESOTOO

LIQUID SULPHUR DIOXIDE

## V-METH-L

METHYL CHLORIDE

McCORD  
REFRIGERATION  
PRODUCTS

COMMERCIAL EVAPORATORS

DOMESTIC EVAPORATORS

CONDENSERS

METLFLEX ICE TRAYS

SPIRAL FINNED TUBING

SPIRAL COPPER FINNED IRON

STEEL OR COPPER PIPE

McCORD  
RADIATOR &  
MFG. CO.  
DETROIT, MICH.

## The Trucks You'll Buy Eventually

The new 1934 Model Heavy Duty X-70 Refrigerator Trucks—fit all cabinets with or without legs, or in the crate, preventing damage to cabinet, floor or walls. Sturdy all steel frame. One truck with top casters and handles for tilting and rolling into delivery truck and on stairs. Only pads touch cabinet. Complete set \$34.50. Ball bearing swivel Balance on one end \$5 extra. Also manufacturing Balance Refrigerator Trucks and eleven styles of piano trucks.



Self-Lifting Piano Truck Co.

Findlay, Ohio

Manufacturers of Trucks Since 1901